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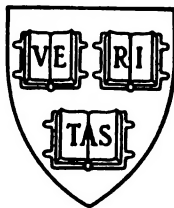
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PREFATORY NOTE.

In its efforts to "foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, the labor interests, and the transportation facilities of the United States," the Department of Commerce and Labor issues many regular and special publications which are intended for free but judicious distribution. The object of this pamphlet is to acquaint the general public with the titles, sizes, and dates of issue of these publications so far as they are available for distribution at the present time.

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and can also, as a rule, be purchased at a small price by application to the "Superintendent of Documents, Office of the Public Printer, Washington, D. C."

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department. But one frank is required for each package, which may contain several copies if the package does not exceed 4 pounds 6 ounces in weight.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey, and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce and Labor, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases, persons receiving publications regularly should give notice promptly of any changes of address, stating specifically the publication or publications received by them.

PUBLICATIONS AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

Annual report of the Secretary of Commerce and Labor, 1910. 98 pp. 1910.
[There are also on hand a limited supply of the Secretary's report for each of the years 1903 to 1909, inclusive.]

Reports of the Department of Commerce and Labor [report of the Secretary and reports of bureaus consolidated], 1910. 692 pp., 2 charts. 1911. [There are also on hand a limited supply of the consolidated reports for each of the years 1904, 1905, 1908, and 1909.]

Annual report of the Chief of Appointment Division, 1910. 39 pp. 1910.

Annual report of the Chief of the Division of Publications, 1910. 28 pp. 1910.
[There are also available a few copies of each of the annual reports from 1907 to 1909, inclusive.]

Fur seals of Alaska. Hearings before the Committee on Ways and Means, House of Representatives, 58th Congress, 2d session. (Mar. 9 and 10, 1904.) 76 pp. 1904.

Report on the Alaskan fur-seal fisheries. (Aug. 31, 1906.) By Edwin W. Sims, Solicitor of the Department of Commerce and Labor. 59 pp. 1906.

Wreck of the steamer Valencia. Report to the President of the Federal commission of investigation. (Apr. 14, 1906.) 53 pp., 3 pls. 1906.

Report of the commission appointed by the President on September 16, 1903, to investigate the condition of the immigration station at Ellis Island. 38 pp. 1904.

Departmental index; being an alphabetical arrangement of subjects in the statutes relating to the Executive Departments in general. 60 pp. 1905.

Proceedings of the first annual meeting of the National Council of Commerce, Washington, D. C., December 10, 1908. 28 pp. 1909.

Promotion of commerce in France. By Morris Jacobson, internal-commerce expert. 18 pp. 1908.

List of publications of the Department of Commerce and Labor available for distribution. 6th edition, May 1, 1911. 65 pp. 1911.

In addition to the foregoing, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

BUREAU OF THE CENSUS.

TENTH (1880) CENSUS REPORTS.

Agriculture. 1184 pp., 23 pls., 46 text figs. 1883.

Compendium, Part I. 1140 pp. 1885.

Same, Part II. 858 pp. 1888.

Mortality and vital statistics, Part II. 962 pp., 20 pls., 114 text figs. 1886.

Population. 1052 pp., 72 pls., 8 text figs. 1883.

BUREAU OF THE CENSUS—TENTH CENSUS REPORTS—Continued.

Precious metals. 556 pp., 2 pls., 1 text fig. 1885.
 Social statistics of cities, Part II. 850 pp., 110 pls., 118 text figs. 1887.
 Waterpower, Part II. 788 pp., 24 pls., 197 text figs. 1887.

ELEVENTH (1890) CENSUS REPORTS.

Agriculture and fisheries. 658 pp., 25 pls. 1895.
 Agriculture by irrigation in the western part of the United States. 344 pp., 22 pls., 9 text figs. 1894.
 Compendium, Part I—Population. 1098 pp., 9 pls., 2 figs. 1892.
 Same, Part II—Miscellaneous statistics. 1078 pp. 1894.
 Same, Part III—Miscellaneous statistics. 1158 pp. 1897.
 Crime, pauperism, and benevolence, Part I—Analysis. 420 pp., 3 pls. (1 folder). 1896.
 Same, Part II—General tables. 1048 pp., 4 pls. 1895.
 Education. 150 pp. 1893.
 Farms and homes, proprietorship and indebtedness. 658 pp., 89 pls. 1896.
 Insane, feeble-minded, deaf and dumb, and blind. 766 pp., 60 pls. 1895.
 Insurance business, Part I—Fire, marine and inland. 1138 pp. 1894.
 Same, Part II—Life. 490 pp. 1895.
 Manufactures, Part I—Totals for States and Industries. 1008 pp. 1895.
 Same, Part II—Statistics of cities. 872 pp. 1895.
 Same, Part III—Selected industries. 734 pp. 1895.
 Population, Part I. 1181 pp., 40 pls. 1895.
 Same, Part II. 1002 pp. 1897.
 Real estate mortgages. 956 pp., 58 pls. 1895.
 Social statistics of cities. 146 pp., 33 pls. 1895.
 Statistical atlas. 70 pp., 63 pls., 409 text figs. 1898.
 Transportation business, Part I—By land. 876 pp., 2 pls. (folders). 1895.
 Same, Part II—By water. 546 pp., 2 pls. (1 folder). 1894.
 Vital and social statistics, Part I—Analysis and rate tables. 1078 pp., 30 pls., 93 text figs. 1896.
 Same, Part II—Cities of 100,000 population and upward. 1192 pp., 34 pls., 64 text figs. 1896.
 Same, Part III—Statistics of deaths. 1058 pp. 1894.
 Same, Part IV—Statistics of deaths. 1034 pp. 1895.
 Vital statistics of Boston and Philadelphia. 278 pp., 12 pls., 11 text figs. 1895.
 Vital statistics of the District of Columbia and Baltimore. 250 pp., 12 pls., 9 text figs. 1893.
 Vital statistics of New York and Brooklyn. 538 pp., 14 pls. (2 pocket and 12 folders), 14 text figs. 1894.
 Wealth, debt, and taxation, Part II—Valuation and taxation. 662 pp., 7 pls. 1895.

TWELFTH (1900) CENSUS REPORTS.

Abstract. 470 pp. 1903.
 Agriculture, Part I—Farms, live stock, and animal products. 1004 pp., 19 pls. 1902.
 Same, Part II—Crops and irrigation. 880 pp., 28 pls., 35 text figs. 1902.
 Employees and wages. 1343 pp. 1903.
 Manufactures, Part I—United States by industries. 1040 pp., 24 pls., 2 text figs. 1902.
 Same, Part II—By States and Territories. 1112 pp. 1902.
 Same, Part III—Special reports on selected industries. 1144 pp., 83 pls., 23 text figs. 1902.

BUREAU OF THE CENSUS—TWELFTH CENSUS REPORTS—Continued.

Same, Part IV—Special reports on selected industries. 996 pp., 14 text figs. 1902.

Manufactures—Textiles (monograph). 258 pp. 1902.

Occupations. 764 pp., 12 pls. 1904.

Population, Part I. 1336 pp., 18 pls. 1901.

Statistical atlas. 92 pp., 207 pls. 1908.

TWELFTH (1900) CENSUS BULLETINS.

Agriculture:

States and Territories—

- Alabama—No. 155. 14 pp. 1902.
- Arkansas—No. 153. 14 pp. 1902.
- California—No. 164. 20 pp., 1 text fig. 1902.
- Colorado—No. 177. 20 pp., 2 text figs. 1902.
- Connecticut—No. 104. 12 pp. 1901.
- Delaware—No. 100. 10 pp. 1901.
- District of Columbia—No. 85. 4 pp. 1901.
- Florida—No. 165. 14 pp. 1902.
- Georgia—No. 181. 14 pp. 1902.
- Hawaii—No. 169. 16 pp., 1 text fig. 1902.
- Idaho—No. 185. 18 pp., 1 text fig. 1902.
- Illinois—No. 213. 12 pp. 1902.
- Indian Territory—No. 186. 10 pp. 1902.
- Indiana—No. 182. 12 pp. 1902.
- Iowa—No. 160. 12 pp. 1902.
- Kansas—No. 192. 14 pp. 1902.
- Kentucky—No. 220. 14 pp. 1902.
- Louisiana—No. 227. 18 pp. 1902.
- Maine—No. 139. 12 pp. 1902.
- Maryland—No. 151. 12 pp. 1902.
- Massachusetts—No. 125. 12 pp. 1902.
- Michigan—No. 183. 12 pp. 1902.
- Minnesota—No. 170. 12 pp. 1902.
- Mississippi—No. 225. 14 pp. 1902.
- Missouri—No. 224. 14 pp. 1902.
- Montana—No. 205. 18 pp., 1 text fig. 1902.
- Nebraska—No. 193. 14 pp. 1902.
- Nevada—No. 187. 16 pp., 1 text fig. 1902.
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- Oklahoma—No. 230. 14 pp. 1902.
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- Pennsylvania—No. 207. 12 pp. 1902.
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- South Carolina—No. 232. 14 pp. 1902.
- South Dakota—No. 234. 14 pp. 1902.
- Tennessee—No. 226. 14 pp. 1902.

BUREAU OF THE CENSUS—TWELFTH CENSUS BULLETINS—Continued.

Agriculture—Continued.**States and Territories—Continued.**

- Texas—No. 229. 18 pp. 1902.
- United States—No. 237. 26 pp. 1902.
- Utah—No. 222. 14 pp., 1 text fig. 1902.
- Vermont—No. 162. 10 pp. 1902.
- Virginia—No. 223. 14 pp. 1902.
- Washington—No. 231. 16 pp., 1 text fig. 1902.
- West Virginia—No. 211. 10 pp. 1902.
- Wisconsin—No. 218. 14 pp. 1902.
- Wyoming—No. 235. 14 pp. 1902.

Special inquiries—

- Domestic animals in barns and inclosures, not on farms or ranges—
No. 17. 100 pp. 1909.
- Domestic animals in the United States—No. 156. 22 pp. 1902.

Geography:

- Area and population, a discussion of—No. 149. 24 pp., 4 text figs. 1902.
- Center of population and its median point—No. 62. 3 pp., 1 folder. 1901.

Manufactures:**States and Territories—**

- Alabama—No. 117. 16 pp. 1901.
- Arkansas—No. 110. 12 pp. 1901.
- California—No. 136. 30 pp. 1902.
- Colorado and Utah—No. 107. 26 pp. 1901.
- Connecticut—No. 109. 32 pp. 1901.
- Delaware—No. 69. 12 pp. 1901.
- Florida—No. 101. 10 pp. 1901.
- Georgia—No. 118. 20 pp. 1901.
- Illinois—No. 142. 40 pp. 1902.
- Indiana—No. 143. 32 pp. 1902.
- Iowa—No. 114. 26 pp. 1901.
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- Kentucky—No. 134. 24 pp. 1902.
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- North Carolina—No. 130. 16 pp. 1902.
- Ohio—No. 154. 52 pp. 1902.
- Oregon—No. 105. 14 pp. 1901.
- Pennsylvania—No. 163. 68 pp. 1902.
- Rhode Island—No. 93. 21 pp. 1901.
- South Carolina—No. 140. 14 pp. 1902.

BUREAU OF THE CENSUS—TWELFTH CENSUS BULLETINS—Continued.**Manufactures—Continued.****States and Territories—Continued.**

- Tennessee—No. 143. 20 pp. 1902.
- Texas—No. 146. 28 pp. 1902.
- Vermont—No. 112. 12 pp. 1901.
- Virginia—No. 144. 22 pp. 1902.
- Washington—No. 141. 18 pp. 1902.
- West Virginia—No. 120. 14 pp. 1901.
- Wisconsin—No. 145. 28 pp. 1902.

Special industries—

- Agricultural implements—No. 200. 37 pp. 1902.
- Alcoholic liquors—No. 180. 42 pp. 1902.
- Beet sugar—No. 59. 15 pp., 5 text figs. 1901.
- Bicycles and tricycles—No. 176. 18 pp. 1902.
- Boots and shoes—No. 221. 30 pp. 1902.
- Buttons—No. 172. 16 pp. 1902.
- Carriages and wagons—No. 241. 32 pp., 2 text figs. 1902.
- Cars, steam railroad—No. 214. 30 pp., 1 text fig. 1902.
- Cheese, butter, and condensed milk, factory product—No. 189. 30 pp., 1 text fig. 1902.
- Clay products—No. 194. 48 pp. 1902.
- Clothing—No. 233. 46 pp., 2 text figs. 1902.
- Collars and cuffs—No. 188. 10 pp. 1902.
- Combined textiles—No. 204. 16 pp. 1902.
- Cotton ginning, crop of 1899—No. 58. 16 pp. 1901.
- Same, crop of 1900—No. 98. 22 pp., 5 text figs. 1901.
- Same, crops of 1899, 1900, and 1901—No. 206. 38 pp., 14 text figs. 1902.
- Cotton manufactures—No. 215. 56 pp. 1902.
- Cottonseed products—No. 129. 10 pp., 1 text fig. 1902.
- Dyeing and finishing textiles—No. 202. 16 pp. 1902.
- Electrical apparatus and supplies—No. 245. 56 pp. 1902.
- Flax, hemp, and jute products—No. 168. 8 pp. 1902.
- Flouring and grist mill products—No. 199. 32 pp. 1902.
- Fruits and vegetables, fish, and oysters, canning and preserving—No. 209. 56 pp. 1902.
- Gas—No. 123. 18 pp. 1902.
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- Gloves and mittens, leather—No. 175. 22 pp. 1902.
- Industrial combinations—No. 122. 18 pp. 1901.
- Iron and steel—No. 246. 98 pp. 1902.
- Lead, copper, and zinc smelting and refining—No. 124. 26 pp. 1902.
- Leather, tanned, curried, and finished—No. 195. 40 pp. 1902.
- The localization of industries—No. 244. 28 pp. 1902.
- Locomotives—No. 243. 20 pp., 9 text figs. 1902.
- The lumber industry—No. 203. 98 pp. 1902.
- Manufactured ice—No. 174. 26 pp., 3 text figs. 1902.
- Musical instruments and materials—No. 238. 38 pp. 1902.
- Needles and pins—No. 191. 14 pp. 1902.
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- Paper and pulp—No. 99. 13 pp. 1901.
- Patents in relation to manufactures—No. 242. 86 pp. 1902.
- Pens and pencils—No. 212. 24 pp. 1902.

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Manufactures—Continued.

Special Industries—Continued.

- Power employed in manufactures—No. 247. 50 pp. 1902.
- Printing and publishing—No. 216. 84 pp., 12 text figs. 1902.
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- Rubber boots and shoes—No. 171. 12 pp., 1 text fig. 1902.
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- Watches and watch cases—No. 173. 16 pp. 1902.
- Wool manufactures, also hosiery and knit goods, shoddy, and fur hats—No. 236. 126 pp. 1902.

REPORTS OF THE PERMANENT CENSUS.

- A century of population growth: 1790-1900. 314 pp., 8 pls., 32 text figs. 1909.
- Benevolent institutions: 1904. 336 pp. 1905.
- The blind and the deaf: 1900. 264 pp., 3 pls., 51 text figs. 1906.
- Central electric light and power stations: 1902. 188 pp., 15 pls., 7 text figs. 1905.
- Same, 1907. 200 pp., 26 pls., 10 text figs. 1910.
- Electrical industries: 1902. 824 pp., 48 pls., 15 text figs. 1905.
- Express business in the United States: 1907. 28 pp. 1908.
- Insane and feeble-minded in hospitals and institutions: 1904. 238 pp. 1906.
- Manufactures: 1905—Part I. United States by industries. 1030 pp., 42 text figs. 1907.
- Marriage and divorce: 1867-1906—Part I. 550 pp., 14 text figs. 1909.
- Same, 1867-1906—Part II. General tables. 850 pp. 1908.
- Mines and quarries: 1902. 1154 pp., 49 pls., 25 text figs. 1905.
- Mortality: 1900 to 1904. 1004 pp. 1906.
- Same, 1905. 360 pp., 3 text figs. 1907.
- Same, 1906. 436 pp., 2 text figs. 1908.
- Same, 1907. 528 pp., 11 pls., 1 text fig. 1909.
- Same, 1908. 706 pp. 1910.
- Paupers in almshouses: 1904. 216 pp. 1906.
- Prisoners and juvenile delinquents in institutions. 296 pp. 1907.
- Religious bodies: 1906—Part I. Summary and general tables. 576 pp., 25 text figs. 1910.
- Same, 1906—Part II. Separate denominations: History, description, and statistics. 672 pp. 1910.
- Statistics of cities having a population of over 30,000: 1905. 372 pp. 1907.
- Same, 1906. 358 pp. 1908.
- Same, 1908. 353 pp. 1910.
- Supplementary analysis and derivative tables. 1160 pp., 2 pls., 59 text figs. 1906.

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Telephones and telegraphs: 1902. 184 pp., 14 pls., 8 text figs. 1906.
 Telephones: 1907. 138 pp., 7 pls., 7 text figs. 1910.
 Transportation by water: 1906. 240 pp., 4 pls., 14 text figs. 1908.
 Wealth, debt, and taxation. 1246 pp., 16 text figs. 1907.
 Women at work, statistics of. 400 pp. 1907.

BULLETINS OF THE PERMANENT CENSUS.

Age statistics, a discussion of—13. 54 pp., 2 text figs. 1904.
 Child labor in the United States—69. 200 pp. 1907.
 Commercial valuation of railway operating property in the United States:
 1904—21. 88 pp. 1906.
 Cotton ginned in the United States, quantity of (crops of 1899 to 1902, inclu-
 sive)—2. 46 pp., 14 text figs. 1903.
 Cotton production: 1906—76. 68 pp., 12 text figs. 1907.
 Same, 1909—107. 32 pp., 4 text figs. 1910.
 Cotton production and statistics of cottonseed products: 1905—40. 72 pp., 2
 text figs. 1906.
 Earnings of wage-earners—93. 180 pp., 18 text figs. 1908.
 Electrical industries of Porto Rico—99. 30 pp. 1909.
 Estimates of population, 1904, 1905, and 1906—71. 28 pp. 1907.
 Estimates of population of the larger cities of the United States in 1901, 1902,
 and 1903—7. 22 pp. 1904.
 The executive civil service of the United States: 1904—12. 240 pp. 1904.
 Executive civil service, statistics of employees: 1907—94. 164 pp., 9 text figs.
 1908.
 Geographical distribution of population: 1880, 1890, and 1900—1. 24 pp., 1 text
 fig. 1903.
 Illiteracy in the United States: 1904—26. 54 pp., 4 text figs. 1905.
 Increase of population: 1890 to 1900, a discussion of—4. 64 pp., 10 text figs.
 1903.
 Industrial districts: 1905—101. 82 pp., 14 text figs. 1909.
 Insular and municipal finances in Porto Rico for the fiscal year 1902—3—24.
 82 pp. 1906.
 Manufactures, census of 1905:
 States and Territories—
 Alabama—43. 23 pp. 1906.
 Arizona, Indian Territory, New Mexico, and Oklahoma—30. 36 pp.
 1906.
 California, Oregon, and Washington—49. 74 pp. 1906.
 Colorado, Idaho, Nevada, and Utah—37. 50 pp. 1906.
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 Delaware—31. 36 pp. 1906.
 Florida—33. 18 pp. 1906.
 Georgia—55. 24 pp. 1906.
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 Iowa—32. 28 pp. 1906.
 Kansas—28. 26 pp. 1906.
 Kentucky and Tennessee—47. 46 pp. 1906.
 Louisiana, Mississippi, and Texas—48. 58 pp. 1906.
 Maine—51. 26 pp. 1906.
 Maryland and District of Columbia—27. 34 pp. 1906.

BUREAU OF THE CENSUS—BULLETINS OF THE PERMANENT CENSUS—Continued.

Manufactures, census of 1905—Continued.

States and Territories—Continued.

- Massachusetts—53. 80 pp. 1906.
- Michigan—18. [1904.] 36 pp. 1905.
- Minnesota—46. 28 pp. 1906.
- Missouri and Arkansas—35. 47 pp. 1906.
- Montana, North Dakota, South Dakota, and Wyoming—34. 39 pp. 1906.
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- North Carolina and South Carolina—39. 38 pp. 1906.
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- Virginia and West Virginia—44. 44 pp. 1906.
- Wisconsin—56. 40 pp. 1906.

Special industries—

- Agricultural implements—75. 32 pp., 4 text figs. 1907.
- Automobiles and bicycles and tricycles—66. 38 pp. 1907.
- Boots and shoes, leather, and leather gloves and mittens—72. 82 pp. 1907.
- Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 pp. 1907.
- Canning and preserving, rice cleaning and polishing, and the manufacture of beet sugar—61. 70 pp. 1906.
- Carriages and wagons, and the steam and street railroad car industry—84. 76 pp. 1907.
- Chemicals and allied products—92. 124 pp. 1908.
- Copper, lead, and zinc, smelting and refining—86. 32 pp. 1907.
- Electrical machinery, apparatus, and supplies—73. 74 pp., 7 pls. 1907.
- Glass and clay products—62. 108 pp. 1907.
- Iron and steel and tin andterne plate—78. 106 pp. 1907.
- Lumber and timber products—77. 70 pp., 5 pls. 1907.
- Metal-working machinery—67. 18 pp., 3 pls. 1907.
- Musical instruments, attachments, and materials—82. 34 pp. 1907.
- Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 52 pp. 1907.
- Petroleum refining—70. 58 pp., 3 pls. 1907.
- Power employed in manufactures—88. 28 pp. 1907.
- Printing and publishing—79. 134 pp., 37 text figs. 1907.
- Shipbuilding—81. 29 pp., 1 pl. 1907.
- Slaughtering and meat packing, manufactured ice, and salt—83. 84 pp., 2 text figs. 1907.
- Textiles—74. 212 pp. 1907.
- Tobacco—87. 34 pp. 1907.

Marriage and divorce: 1887-1906—96. 72 pp., 2 text figs. 1908.

Mines and quarries: 1902—9. 60 pp. 1904.

Mortality: 1908—104. 134 pp. 1909.

Municipal electric fire-alarm and police-patrol systems: 1902—11. 34 pp., 1 pl. 1904.

Negroes in the United States: 1900—8. 334 pp., 1 pl., 13 text figs. 1904.

**BUREAU OF THE CENSUS—BULLETINS OF THE PERMANENT
CENSUS—Continued.**

- Population by States and Territories—Thirteenth Census: 1910—109. 7 pp., 1 text fig. 1910.
- Population of Oklahoma and Indian Territory: 1907—89. 44 pp., 1 pl. (folder). 1907.
- Proportion of children in the United States—22. 28 pp., 2 text figs. 1905.
- Proportion of the sexes in the United States—14. 52 pp., 8 text figs. 1904.
- Religious bodies: 1906—103. 92 pp., 3 text figs. 1909.
- Statistics of cities having a population of 8,000 to 25,000: 1903—45. 232 pp. 1906.
- Statistics of cities having a population of over 25,000: 1902 and 1903—20. 482 pp. 1905.
- Statistics of cities having a population of over 30,000: 1904—50. 210 pp. 1906.
- Supervisors' districts—Thirteenth Census—98. 70 pp., 51 text figs. 1909.
- Supply and distribution of cotton for the year ending August 31, 1905—25. 16 pp., 2 text figs. 1905.
- Same, 1907—90. 28 pp., 1 text fig. 1907.
- Same, 1908—97. 40 pp., 2 pls., 3 text figs. 1908.
- Same, 1909—106. 64 pp., 15 text figs. 1910.
- Same, 1910—110. 32 pp., 3 text figs. 1910.
- Teachers, census statistics of—23. 20 pp. 1905.
- Telegraph systems: 1907—102. 48 pp., 8 pls., 1 text fig. 1909.
- Telephones and telegraphs: 1902—17. 50 pp. 1905.
- Transportation by water: 1906, United States—91. 53 pp. 1908.
- Vital statistics of the Twelfth Census, a discussion of—15. 24 pp. 1904.

PAMPHLETS.

Forest products:

- No. 1. Pulp-wood consumption: 1908. 12 pp. 1909.
- No. 2. Lumber, lath, and shingles: 1908. 58 pp., 2 text figs. 1909.
- No. 3. Slack cooperage stock: 1908. 12 pp. 1909.
- No. 4. Tan bark and tanning extracts: 1908. 10 pp. 1909.
- No. 5. Veneers: 1908. 14 pp. 1909.
- No. 6. Tight cooperage stock: 1908. 12 pp. 1909.
- No. 7. Wood distillation: 1908. 10 pp. 1909.
- No. 8. Cross-ties purchased: 1908. 8 pp. 1909.
- No. 9. Poles purchased: 1908. 8 pp. 1909.
- No. 10. United States: 1908 (consolidated). 138 pp., 2 text figs. 1909.

MISCELLANEOUS PUBLICATIONS.

- Manual of international classification of causes of death. 178 pp. 1902.
- Same. 146 pp. 1910.
- Heads of families—First Census of the United States: 1790.
- Connecticut. 228 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)
- Maine. 106 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)
- Maryland. 190 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)
- Massachusetts. 364 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)
- New Hampshire. 146 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)
- New York. 308 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

BUREAU OF THE CENSUS—MISCELLANEOUS PUBLICATIONS—Cont'd.

Heads of families—First Census of the United States: 1790—Continued.

North Carolina. 292 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Pennsylvania. 426 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Rhode Island. 72 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

South Carolina. 150 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Vermont. 96 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

Heads of families—State enumerations made in 1782, 1783, 1784, 1785: Virginia. 189 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

COAST AND GEODETIC SURVEY.

The publications here listed are, with a few exceptions, arranged chronologically under their respective subjects. They can be obtained free of charge on application to the Chief of the Division of Publications, Department of Commerce and Labor, Washington, D. C., except Coast Pilots and Tide Tables, which are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing, and Chart Catalogues, which can be obtained free of charge on application to the Superintendent of the Coast and Geodetic Survey. The "List and Catalogue," which is a bibliography of the publications issued by this Bureau, may be consulted at any public library.

ANNUAL REPORTS.

Report of the Superintendent of the Coast and Geodetic Survey, showing the progress of the work from July 1, 1909, to June 30, 1910. 454 pp., 51 figs. and diags., 9 progress sketches in pocket. 1911. [There are also on hand a limited supply of each of the annual reports for the years 1852, 1853, 1856, 1860, 1861, 1866-1868, 1870-1874, 1876-1895, 1899-1901, 1903, 1904, 1908, and 1909.]

GEODESY.

Standard mean places of circumpolar and time stars, prepared for the use of the U. S. Coast Survey. By B. A. Gould. 2d ed. 15 pp. 1866.

On the use of railways for geodetic surveys. By J. E. Hilgard. Report for 1867, app. 9, p. 140-144, sketch 26.

Reports of observations of the eclipse of the sun on August 7, 1869, made by parties of the United States Coast Survey, at the following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under the immediate direction of the Superintendent of the Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts and plates nos. 24, 25, and 26, 16 figs., 1 map, 2 diags.

On the use of the zenith-telescope for observations of time. By J. E. Hilgard. Report for 1869, app. 12, p. 226-232.

Extract from a report to Benjamin Peirce, relative to a method of determining elevations along the course of a tidal river, without the aid of a leveling instrument, by Henry Mitchell. Report for 1870, app. 11, p. 98, 99.

Results of the telegraphic determination of the longitude of San Francisco, Cal. Report for 1870, app. 12, p. 100.

Reports of observations upon the total solar eclipse of December 22, 1870. Report for 1870, apps. 16 and 16a, p. 115-177 and 229-232, 8 figs., 1 pl., 1 diag.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Determination of weights to be given to observations for determining time with portable transit-instruments, recorded by the chronographic method.** By Charles A. Schott. Report for 1872, app. 12, p. 222-226.
- Note on intervisibility of stations.** By J. E. Hilgard. Report for 1873, app. 13, p. 137, 1 fig.
- A list of stars for observations of latitude.** Report for 1873, app. 14, p. 133-174.
- Errata in the Hells catalogue of stars.** Report for 1873, app. 15, p. 175-180.
- Geographical positions of prominent places in the United States determined astronomically or geodetically by the United States Coast Survey.** Report for 1874, app. 6, p. 62-63.
- Transit of Venus, 1769. Results of observations for determining positions occupied in Lower California and at Philadelphia, reported by Charles A. Schott.** Report for 1874, app. 10, p. 131-133, 1 map (sketch 22).
- Improved clamp for the telescope of the theodolite.** By George Davidson. Report for 1874, app. 15, p. 153, 1 fig.
- Description of two forms of portable apparatus for the determination of personal equation, both relative and absolute, in observations of star transits.** By J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig., 1 diag.
- Field catalogue of 983 transit stars. Mean places for 1870.0.** By G. Davidson, 33 pp. 1874.
- A catalogue of stars for observations of latitude.** By J. E. Hilgard. Report for 1876, app. 7, p. 83-129.^a
- Comparison of the methods of determining heights by means of leveling, vertical angles and barometric measures, from observations at Bodega Head and Ross Mountain, California.** By George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 figs. [Reprinted from report of 1871, app. 16.]^a
- Observations of atmospheric refraction—Contribution No. II. Determination of several heights by the spirit-level, and measures of refraction by zenith-distances, also observations of the barometer at Ragged Mountain, Maine, in July, August, and September, 1874.** By F. W. Perkins. Results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a
- On atmospheric refraction and adjustment of hypsometric measures—Contribution No. III. Determination of the coefficient of refraction from zenith-distances observed in northern Georgia, by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of the method of least squares. Discussion and report by Charles A. Schott.** Report for 1876, app. 18, p. 368-387, 2 figs.^a
- On the adaptation of triangulations to various conditions, depending on the configuration or orographic character of a country and on the degree of accuracy aimed at, with due consideration of the time and means available; also notes on the method of observing horizontal angles and directions in geodetic surveys.** By Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 figs. [Reprinted, with additions, from the report for 1871, app. 15.]
- The Pamlico-Chesapeake arc of the meridian and its combination with the Nantucket and the Peruvian arcs, for a determination of the figure of the earth from American measures.** By Charles A. Schott. Report for 1877, app. 6, p. 84-95.
- Description of an improved open vertical clamp for the telescopes of theodolites and meridian instruments, devised by George Davidson.** Report for 1877, app. 13, p. 182-183, 1 fig.
- Observations of the transit of Mercury, May 6, 1878, made at Summit station, Central Pacific Railroad.** By B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl., 1 sketch (27).
- Observations made at Washington, D. C., of the transit of Mercury, May 6, 1878.** By Charles A. Schott. Report for 1878, app. 7, p. 88-91.

^aNo. 19 of 1876 is also bound with these appendices, and appears under "Allied subjects."

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Adjustment of the primary triangulation between the Kent Island and Atlanta base-lines. By Charles A. Schott. Report for 1878, app. 8, p. 92-120, 1 fig.
- Description of the Davidson meridian instrument. By George Davidson. Report for 1879, app. 7, p. 103-109, 1 pl.
- Comparison of local deflections of the plumb-line in latitude, longitude, and azimuth, at stations of the oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids. By C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.
- On the internal constitution of the earth. By Benjamin Peirce. Report for 1879, app. 14, p. 201.
- On instruments and methods used for precise leveling in the Coast and Geodetic Survey. By O. H. Tittmann. Report for 1879, app. 15, p. 202-211, 1 fig., 1 pl., 1 diag.
- Observations to determine the refraction on lines passing near a surface of water, made at different elevations across the Potomac River. By Andrew Braid. Report for 1879, app. 16, p. 212, 213.
- Report on the results of the longitudes of the Coast and Geodetic Survey determined up to the present time by means of the electric telegraph, together with their preliminary adjustment by the method of least squares. By Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag.
- Explanation of apparatus for observation of telegraphic longitudes, with directions for its use. By Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diags. (34 and 35).
- Report on geodesic night signals. By Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig., 1 pl., 1 diag. (36 and 37).
- Report on geodesic leveling on the Mississippi River. By Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diags. (sketches 45, 46, 47).
- An account of a perfected form of the contact-slide base apparatus used in the Coast and Geodetic Survey. By J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. (sketch 82, figs. 1-8).
- Meteorological researches. By William Ferrel. Part III. Barometric hypsometry and reduction of the barometer to sea-level. Report for 1881, app. 10, p. 225-268, illus. 38.
- On a method of readily transferring the underground terminal marks of a base line. By O. H. Tittmann. Report for 1881, app. 13, p. 357, 358.
- On the flexure of pendulum supports. By C. S. Peirce. Report for 1881, app. 14, p. 359-441.
- On the deduction of the ellipticity of the earth from pendulum experiments. By C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.
- On a method of observing the coincidence of vibration of two pendulums. By C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 figs.
- On the value of gravity at Paris. By C. S. Peirce. Report for 1881, app. 17, p. 461-463.
- Description and construction of a new compensation primary base apparatus, including the determination of the length of the corresponding five-meter standard bars. By Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 figs., 2 diags.
- Report of the measurement of the Yolo base, Yolo County, Cal. By George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig., 1 sketch, 2 diags.
- The total solar eclipse of January 11, 1880, observed at Mount Santa Lucia, California. By George Davidson. Report for 1882, app. 20, p. 463-468, 2 diags.
- A new reduction of La Caille's observations, made at the Cape of Good Hope and at Paris between 1749 and 1757, and given in his "Astronomiæ Fundamenta," together with a comparison of the results with the Bradley-Bessel "Fundamenta;" also a catalogue of the places of 150 stars south of declination -30° , for the epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.
- Report of a conference on gravity determinations, held at Washington, D. C., in May, 1882. Report for 1882, app. 22, p. 503-516.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Results for the length of the primary base-line in Yolo County, Cal., measured in 1881 by the party of George Davidson. Computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag.**
- Results of observations for atmospheric refraction on the line Mount Diablo to Martinez, California, in connection with hypsometric measures by spirit level, the vertical circle and the barometer, made in March and April, 1880, by George Davidson. Reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag.**
- Observations of the transit of Venus of December 6, 1882, at Washington, D. C., and at Tepusquet station, California, and at Lehman's ranch, Nevada. By C. A. Schott, B. A. Colonna, William Eimbeck, and J. S. Lawson. Report for 1883, app. 13, p. 371-378.**
- Field catalogue of 1,278 time and circumpolar stars. Mean places for 1885.0. By George Davidson. Report for 1883, app. 18, p. 383-471.**
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., in 1879 and 1880. By Charles S. Peirce. Report for 1883, app. 19, p. 473-487.**
- The run of the micrometer. By George Davidson. Report for 1884, app. 8, p. 377-385.**
- Connection at Lake Ontario of the primary triangulation of the Coast and Geodetic Survey with that of the Lake survey. Observations by Charles O. Bontelle. Discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map (illus. 20).**
- Results of a trigonometrical determination of the heights of the stations forming the Davidson quadrilaterals. California. Observations by George Davidson, 1876-1882. Discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 figs.**
- Longitudes deduced in the Coast and Geodetic Survey from determinations by means of the electric telegraph between the years 1846 and 1885. Second adjustment. By Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. (illus. 21).**
- Determinations of gravity with the Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal., and Washington, D. C. By Edwin Smith. Report for 1884, app. 14, p. 439-473.**
- On the use of the nobby for measuring the amplitude of swaying in a pendulum support. By C. S. Peirce. Report for 1884, app. 15, p. 476-482.**
- Note on the effect of the flexure of a pendulum upon its period of oscillation. By C. S. Peirce. Report for 1884, app. 16, p. 483-485.**
- Geographical positions of trigonometrical points in the States of Massachusetts and Rhode Island, determined by the United States Coast and Geodetic Survey between the years 1835 and 1885, and including those determined by the Borden survey in the years 1832 to 1838. By Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps (illus. 25, 26).**
- Results deduced from the geodetic connection of the Yolo base line with the primary triangulation of California. Also a reduction and adjustment of the Davidson quadrilaterals forming part of that triangulation. By Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.**
- Note on a device for abbreviating time reductions. By C. S. Peirce. Report for 1885, app. 15, p. 503-508.**
- On the influence of a nobby on the period of a pendulum. By C. S. Peirce. Report for 1885, app. 16, p. 509, 510.**
- On the effect of unequal temperature upon a reversible pendulum. By C. S. Peirce. Report for 1885, app. 17, p. 511, 512.**
- Fluctuations in the level of Lake Champlain and average height of its surface above the sea. A preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. (illus. 33).**
- Heights from spirit-levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, in 1885-86. Report by Charles A. Schott. Report for 1887, app. 9, p. 185-205.**

COAST AND GEODETIC SURVEY—GEODESY—Continued.

Report of the results of spirit-leveling of precision about New York Bay and vicinity in 1886 and 1887. Observations by John B. Weir and J. E. McGrath. Discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map (illus. 43).

A bibliography of geodesy. By J. Howard Gore. Report for 1887, app. 16, p. 313-512.

Geographical positions of trigonometrical points in the State of Connecticut, determined by the U. S. Coast and Geodetic Survey between the years 1833 and 1886. Introduction and explanation of the tabular results. By Charles A. Schott. Report for 1888, app. 8, p. 313-403, map.

Heights from spirit-leveling of precision between Mobile, Ala., and Okolona, Miss. Observations by J. B. Weir and J. E. McGrath, in 1884, 1886, and 1887. Report by Charles A. Schott. Report for 1888, app. 10, p. 409-426.

Heights from spirit-leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark. Report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453.

Heights from spirit-leveling of precision between Arkansas City (on the Mississippi River) and Little Rock, Ark. Observations by J. E. McGrath, in 1887-88. Report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.

Differential method of computing the apparent places of stars for determinations of latitude. By E. D. Preston. Report for 1888, app. 13, p. 465-470.

Determinations of latitude and gravity for the Hawaiian government. By E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pls., 5 maps, 5 diags. Same, abstract. Bull., no. 11, p. 137-142, 1 fig. and 3 progress maps. 1889.

Report on the measurement of the Los Angeles base line, Los Angeles and Orange counties, California. By George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diags.

Results of spirit-leveling between tide-water at Annapolis, Md., and the Capitol bench-mark at Washington, D. C., from observations in 1875 by F. W. Perkins. Report by C. A. Schott. Report for 1889, app. 15, p. 461-466.

Report on the resulting length and probable uncertainty of five principal base lines, measured with the compensation base apparatus, Bache-Würdenmann, of the Coast Survey, between the years 1847 and 1855, inclusive. By Charles A. Schott. Report for 1889, app. 17, p. 479-491.

Report of George Davidson, appointed by the President of the United States as the delegate to the Ninth Conference of the International Geodetic Association held at Paris, October, 1889. Report for 1889, app. 18, p. 493-503, 1 fig.

Telegraphic determination of the longitude of Mount Hamilton, California. Field work by C. H. Sinclair and R. A. Marr. By Charles A. Schott. Bull., no. 13, p. 147-150. 1889.

Description of two new transit instruments for longitude work. Constructed at the office of the Survey from designs by Edwin Smith. Bull., no. 16, p. 161-164, 1 fig., 1 diag. 1889.

Determinations of gravity and the magnetic elements in connection with the U. S. scientific expedition to the west coast of Africa, 1889-1890. By E. D. Preston. Report for 1890, app. 12, p. 625-684, 16 figs., 10 pls., 1 map. [Includes observations on some islands in the North and South Atlantic ocean.]

Same, abstract. Bull., no. 22, p. 219-223, 1 map, 7 pls. 1891.

International Geodetic Association. Ninth Conference. Paris, October 3-12, 1889. Address of George Davidson, appointed as delegate to the association on the part of the United States. Report for 1890, app. 17, p. 721-733.

Approximate times of culminations and elongations and the azimuths at elongation of Polaris for the years between 1889 and 1910. Submitted for publication as a bulletin November 21, 1889, by Charles A. Schott, and first published February 18, 1890. Report for 1891, pt. 2, app. 1, p. 7-13. [Reprinted from Bull., no. 14.]

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- On the determination of an azimuth from micrometric observations of a close circumpolar star near elongation by means of a meridian transit, or by means of a theodolite with eyepiece micrometer. Submitted for publication as a bulletin December 12, 1890, and first published February 26, 1891. Report on method and example of computation by Charles A. Schott. Observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull., no. 21.]
- The transit of Mercury of May 9, 1881, as observed at Waikiki, Hawaiian Islands. By E. D. Preston. Report for 1891, pt. 2, app. 12, p. 475-477.
- Report of an expedition to Muir glacier, Alaska, with determinations of latitude and the magnetic elements at Camp Muir, Glacier Bay. By Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- On the variation of latitude at Rockville, Md., as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association, by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 figs., 2 pls., 2 diags.
- Same, abstract. Bull., no. 25, p. 237-261, 2 diags. 1892.
- On the variation of latitude at Waikiki, near Honolulu, Hawaiian Islands, as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association. By E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 1 fig., 3 pls., 2 maps, 9 diags.
- On the results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Weir, Isaac Winston, F. A. Welker, and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 3, p. 161-203, 1 fig., 1 map.
- On the results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations made in 1890 and 1891 by Isaac Winston and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224.
- On the measurement of the Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va. Report for 1892, pt. 2, app. 8, p. 329-503, 2 figs., 2 pls., 2 diags.
- Measure of the irregularity in one turn of the micrometer screw, and the relative value of each turn. By George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag.
- On the direct synthetical method of adjusting a triangulation. By Chas. H. Kummell. Report for 1892, pt. 2, app. 12, p. 535-552, 4 figs.
- On the resulting heights from geodetic leveling along the transcontinental line of levels between St. Louis and Jefferson City, Mo., executed in the years 1882 and 1888, by Andrew Braid, Gershom Bradford, and Isaac Winston. Discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig., 1 diag.
- On photography as applied to obtain an instantaneous record of lunar distances for determinations of longitude. By C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124.
- On the measurement of base line with steel tapes and with steel and brass wires. By Edw. Jäderlin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl., 1 diag.
- Proceedings of the Geodetic Conference, held at Washington, D. C., January 9 to February 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 4 figs., 7 pls., 1 map, 1 diag.
- The variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson between May, 1891, and August, 1892. Discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diags.
- Determinations of latitude, gravity, and the magnetic elements at stations in the Hawaiian Islands, including a result for the mean density of the earth. 1891, 1892. By E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 12 figs., 8 pls., 2 maps, 6 diags.
- Results of observations for the variations of latitude at Waikiki, Hawaiian Islands, in cooperation with the work of the International Geodetic Association. By E. D. Preston. Bull., no. 27, p. 6-20, 2 diags. 1893.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- The constant of aberration as determined from a discussion of results for latitude at Waikiki, Hawaiian Islands. By E. D. Preston. Bull., no. 28, p. 21-34, 1 diag. 1893.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations. By G. R. Putnam; and a report on a geologic examination of some Coast and Geodetic Survey gravity stations. By G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 figs., 1 diag.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore. By E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig.
- Notes on some instruments recently made in the instrument division of the Coast and Geodetic Survey office. By Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pls.
- Geographic positions of trigonometric points in the State of Massachusetts, determined by the United States Coast and Geodetic Survey between the years 1843 and 1894, and including those determined by the Survey made by Borden in the years 1832 to 1838. (2d enlarged and revised ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 3 maps.
- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 3, p. 333-344.
- Graphic method of reducing stars from mean to apparent places. By E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diags.
- Description of leveling rods designed and constructed for use in geodetic leveling operations. By Isaac Winston. Report for 1895, pt. 2, app. 8, p. 381, 382, 2 diags.
- Tables of azimuth and apparent altitude of Polaris at different hour angles. By G. R. Putnam. Report for 1895, app. 10, p. 393-398.
- The constant of aberration as determined from observations of latitude at San Francisco, Cal. Discussion by E. D. Preston. Observations by George Davidson. Bull., no. 32, p. 109-120. 1895.
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir between September and November, 1884, and by I. Winston between December, 1891, and February, 1892. By C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map.
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations made by J. B. Weir in September and October, 1883, and September and October, 1884, with releveling by J. B. Weir between Richmond and Fredericksburg, Va., in May and June, 1886, and verification leveling between the two cities by I. Winston between April and June, 1895. By Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map.
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations made by J. B. Weir between July and September, 1883. Report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map.
- Resulting heights from spirit leveling between Jefferson City, Mo., and Holli-day, Kans., from observations by I. Winston and F. A. Young between April 21 and October 13, 1891. Report by C. A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig., 1 map.
- Field method of reducing portable transit time observations. By G. R. Putnam. Report for 1896, app. 9, p. 347-352.
- Determination of the constant of aberration from latitude observations with the zenith telescope at Honolulu, H. I., and San Francisco, Cal. By E. D. Preston. Report for 1896, app. 10, p. 353-371, 2 diags.
- The telegraphic longitude net of the United States and its connection with that of Europe, 1866-1896. By C. A. Schott. Report for 1897, app. 2, p. 197-261, 1 map.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by the party under the charge of Fremont Morse.** By Charles A. Schott. Report for 1897, app. 3, p. 263-268.
- Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston between July 11 and October 28, 1895.** By Chas. A. Schott. Report for 1897, app. 4, p. 260-283, 1 fig.
- Results of pendulum observations made in 1895 and 1896.** By G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl., 1 map.
- The duplex base apparatus, and directions for its use in the field.** By William Elmbeck. Report for 1897, app. 11, p. 737-752, 2 figs., 3 pls., 1 diag.
- Report on the measurement of the Salt Lake base line, in Utah.** By William Elmbeck. Report for 1897, app. 12, p. 753-774, 1 fig., 6 pls., 1 map, 2 diags.
- Resulting heights from spirit leveling between Salina and Ellis, Kans., from observations made by I. Winston between July 2 and September 9, 1896.** Report by C. A. Schott. Report for 1898, app. 1, p. 179-193, 1 fig.
- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston between June 11 and November 17, 1897.** Report by C. A. Schott. Report for 1898, app. 2, p. 195-214, 2 figs.
- Resulting heights from spirit leveling between Hugo and Colorado Springs, Colo., from observations by I. Winston between April 20 and July 8, 1898.** Report by C. A. Schott. Report for 1898, app. 3, p. 215-228, 1 fig.
- Inquiry into the relative value and need of a check of the Peruvian arc of 1736-1743.** By C. A. Schott. Report for 1898, app. 4, p. 229-232.
- Physical observations made in connection with the Pribilof Islands survey of 1897.** By G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig., 1 map.
- Report on the proceedings of the International Geodetic Association Conference at Stuttgart, Germany, October 3 to 12, 1898, and on geodetic operations in the United States.** By E. D. Preston, delegate on the part of the United States. Report for 1898, app. 6, p. 243-260, 1 pl., 3 maps.
- The International Geodetic Association for the measurement of the earth.** By Erasmus D. Preston, delegate on the part of the United States at the Twelfth General Conference. Report for 1899, app. 3, p. 241-269, 1 map.
- Determinations of gravity at the Polytechnic Institute, Worcester, Mass., and at Columbia University, New York City, with pendulum apparatus B.** By Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 figs.
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston between May 12 and October 21, 1899.** By Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig.
- Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton between May 8 and October 17, 1899.** By B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig.
- Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson between June 3 and November 23, 1899.** Report by O. W. Ferguson. Report for 1899, app. 7, p. 321-345, 1 fig.
- Precise leveling in the United States.** By John F. Hayford. Report for 1899, app. 8, p. 347-386, 3 figs., 8 pls., 2 maps.
- The oblique boundary line between California and Nevada.** By C. H. Sinclair. Report for 1900, app. 3, p. 255-484, 121 figs., 32 pls., 15 maps.
- The international latitude service at Gaithersburg, Md., and Ukiah, Cal., under the auspices of the International Geodetic Association, by Edwin Smith and F. Schlesinger.** Report for 1900, app. 5, p. 495-520, 1 fig., 2 pls., 2 maps, 2 diags.
- The determination of the mean value of one revolution of a micrometer screw and the progressive and periodic errors of the screw, from observations on a circumpolar star near its elongation.** By Edwin Smith. Report for 1900, app. 8, p. 701-712.
- The transcontinental triangulation and the American arc of the parallel.** By Chas. A. Schott. Special publication no. 4. 871 pp., 2 figs., 17 pls., 4 maps, 33 diags. 1900.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

Table of coefficients for reducing inclined sights on vertical rod to horizontal distance. 4 pp. 1900.

Table of factors for computing differences in elevation (in feet). Table of corrections for curvature and refraction (in feet). 4 pp. 1900.

Table of factors for computing differences in elevation (in meters). Table of corrections for curvature and refraction (in meters). 4 pp. 1900.

Table showing the height in meters, corresponding to given angles of elevation and distances in meters. 4 pp. 1900.

On the measurement of nine base lines along the ninety-eighth meridian, By A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229-302.

Extension of tables for the computation of geodetic positions to the Equator. By John F. Hayford. Report for 1901, app. 4, p. 303-339.

Determination of relative value of gravity in Europe and the United States in 1900. By G. R. Putnam. Report for 1901, app. 5, p. 341-355.

Triangulation northward along the ninety-eighth meridian in Kansas and Nebraska. By John F. Hayford. Report for 1901, app. 6, p. 357-423.

Triangulation in Kansas. By J. F. Hayford. Report for 1902, app. 3, p. 211-293, 5 sketch maps.

A bibliography of geodesy. 2d ed. By J. H. Gore. Report for 1902, app. 8, p. 427-787.

The eastern oblique arc of the United States and osculating spheroid. By Chas. A. Schott. Special publication no. 7. 394 pp., 12 pls., 2 maps, 25 diags. 1902.

Precise leveling in the United States, 1900-1903, with a readjustment of the level net and resulting elevations. By J. F. Hayford. Report for 1903, app. 3, p. 189-810, 2 views, 14 maps and sketches, 6 diags.

Triangulation southward along the ninety-eighth meridian in 1902. By J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diags.

Report on geodetic operations in the United States, 1900-1903, to the Fourteenth General Conference of the International Geodetic Association. By O. H. Tittmann. 28 pp., 1 illus. 1903.

Telegraphic longitudes. The Pacific arcs from San Francisco to Manila, 1903-4, completing the circuit of the earth. By Edwin Smith. Report for 1904, app. 4, p. 259-311, 13 illus.

Precise leveling from Red Desert, Wyoming, to Owyhee, Idaho, 1903. By J. F. Hayford. Report for 1904, app. 6, p. 403-430.

Precise leveling from Holland to New Braunfels, Texas, 1903. By J. F. Hayford. Report for 1904, app. 7, p. 433-450.

A test of a transit micrometer. By John F. Hayford. Report for 1904, app. 8, p. 453-487, 2 illus.

Triangulation in California, Part I. By A. L. Baldwin. Report for 1904, app. 9, p. 491-764, 21 illus.

Precise leveling from Red Desert, Wyoming, to Seattle, Washington, 1903-4. By J. F. Hayford. Report for 1905, app. 4, p. 193-241.

Triangulation along the ninety-eighth meridian, Lampasas to Seguin, Texas. By J. F. Hayford. Report for 1905, app. 5, p. 243-282, 2 diags.

The earth movements in the California earthquake of 1906. By J. F. Hayford and A. L. Baldwin. Report for 1907, app. 3, p. 67-104, 2 maps in colors.

Six primary bases measured with steel and invar tapes. By O. B. French. Report for 1907, app. 4, p. 105-156.

Precise leveling in the United States, 1903-1907, with a readjustment of the level net and resulting elevations. By J. F. Hayford and L. Pike. 280 pp., 1 map. 1909.

The figure of the earth and isostasy from measurements in the United States. By J. F. Hayford. 178 pp., 6 maps, 11 diags. 1909.

Geodetic operations in the United States, 1906-1909. A report to the Sixteenth General Conference of the International Geodetic Association. By O. H. Tittmann and J. F. Hayford. 11 pp. 1909. Digitized by Google

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Supplementary investigation in 1909 of the figure of the earth and isostasy. By J. F. Hayford. 80 pp., 5 maps, 1 diag. 1910.
- Primary base lines at Stanton, Texas, and Deming, New Mexico. By William Bowie. Report for 1910, app. 4, p. 143-171, 5 text figs.
- Triangulation in California, Part II. By C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diags.
- Measurement of the flexure of pendulum supports with the interferometer. By W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text figs.

HYDROGRAPHY.

- Report of Henry L. Whiting, on the special survey of Provincetown Harbor, Massachusetts. Report for 1867, app. 12, p. 149-157.
- Report upon surveys in the Merrimack River, made in 1867 by Henry Mitchell. Report for 1867, app. 14, p. 170-175, 1 map, sketch 2.
- Abstract of a paper read before the National Academy of Sciences, April 16, 1869, on the earthquake-wave of August 14, 1868. By J. E. Hilgard. Report for 1869, app. 13, p. 233, 234.
- On the probable effect of extended piers in modifying the channel facilities of San Francisco Bay, near Yerba Buena Island. By Henry Mitchell. Report for 1870, app. 18, p. 180, 181.
- Tidal researches. By William Ferrel. xiii+268 pp., 13 figs. 1874.
- Discussion of tides in New York Harbor. By William Ferrel. Report for 1875, app. 12, p. 194-221.
- Methods of registering tidal observations. By R. S. Avery. Report for 1876, app. 8, p. 130-142, 10 figs.
- Report concerning the location of a quay or pier line in the vicinity of the United States navy-yard at New York. By Henry Mitchell. Report for 1876, app. 11, p. 186-189, sketch 23.
- On tides and tidal action in harbors. By J. E. Hilgard. Reprinted from Smithsonian report for 1874. 22 pp. 1876.
- Description of an apparatus devised for observing currents in connection with the physical survey of the Mississippi River. Report by H. L. Marindin. Report for 1877, app. 9, p. 104-107, 2 figs.
- Description of an optical densimeter for ocean water. By J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig.
- Observations of the density of the waters of Chesapeake Bay and its principal estuaries. Report by Frederick Collins. Report for 1877, app. 14, p. 184-190, 2 figs.
- Physical hydrography of the Gulf of Maine. By Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig., 2 diags.
- Addendum to a report on a physical survey of the Delaware River. By Henry Mitchell. Report for 1879, app. 13, p. 199, 200, 1 diag.
- Comparison of the surveys of Delaware River in front of Philadelphia, 1843 and 1878. By H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diags.
- Report on comparison of surveys of Mississippi River in the vicinity of Cubitt's Gap. By H. L. Marindin. Report for 1880, app. 10, p. 128-134, 1 diag. (44).
- Report on the oyster beds of the James River, Virginia, and of Tangier and Pocomoke sounds, Maryland and Virginia. By Francis Winslow. Report for 1881, app. 11, p. 269-353, 7 pls., 3 maps, 15 diags. (illus. 39-63).
- Report on a new rule for currents in Delaware Bay and River. By Henry Mitchell. Report for 1881, app. 18, p. 464-469, 1 fig.
- Comparison of the survey of Delaware River of 1819, between Pettys and Tinicum islands, with more recent surveys. By Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diags. (sketches 41, 42, and 43).
- Study of the effect of river bends in the Lower Mississippi. By Henry Mitchell. Report for 1882, app. 16, p. 433-436, 1 diag. (sketch 44).
- Discussion of the tides of the Pacific coast of the United States. By William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diags. (sketches 45, 46, 47).

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Report on the Siemens electrical deep-sea thermometer. By J. R. Bartlett. (Accompanied by a description of the apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 figs., 2 diags. (Nos. 48, 49).
- The estuary of the Delaware. A report by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig., 1 diag. (No. 25). [See also Report for 1887, app. 13.]
- Report on the harmonic analysis of the tides at Sandy Hook. By William Ferrel. Report for 1883, app. 9, p. 247-251, 1 map (sketch 26).
- Physical hydrography of Delaware River and Bay. Comparison of recent with former surveys. By H. L. Marindin. Report for 1884, app. 12, p. 431-434, 2 diags. (sketches 22, 23).
- Description of a model of the depths of the sea in the Bay of North America and Gulf of Mexico. By J. E. Hilgard. Report for 1884, app. 17, p. 619-621, 1 map (illus. 25).
- Comparison of transverse sections in the Delaware River, between old navy-yard and east end of Pettys Island, for the years 1819, 1843, and 1878. By Henry L. Marindin. Report for 1885, app. 12, p. 487, 488.
- On the harmonic analysis of the tides at Governors Island, New York Harbor. By William Ferrel. Report for 1885, app. 13, p. 489-493, 1 map (illus. 35).
- Report on deep-sea current work in the Gulf Stream. By J. E. Pillsbury. Report for 1885, app. 14, p. 495-501, 1 pl., 2 maps, 3 diags.
- A report on Monomoy and its shoals. By Henry Mitchell and Charles O. Boutelle. Report for 1886, app. 8, p. 255-261, 2 maps.
- Report of changes in the shore line and beaches of Marthas Vineyard as derived from comparisons of recent with former surveys. By Henry L. Whiting. Report for 1886, app. 9, p. 263-266, 1 map (illus. 21).
- A report on the delta of the Delaware. By Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. (illus. 22).
- A report of Gulf Stream explorations—Observations of currents, 1886. By J. E. Pillsbury. Report for 1886, app. 11, p. 281-290, 6 diags. (plates 23 to 28) presenting curves of observations of currents in the Gulf Stream during 1885 and 1886.
- On the circulation of the sea through New York Harbor. A report by Henry Mitchell. Report for 1886, app. 13, p. 409-432, 3 figs., 3 diags. (illus. 34-39).
- On the movements of the sands at the eastern entrance to Vineyard Sound. By Henry Mitchell. Report for 1887, app. 6, p. 150-163, 1 map, 1 diag. (illus. 31, 32).
- Gulf Stream explorations—Observations of currents, 1887. By J. E. Pillsbury. Report for 1887, app. 8, p. 173-184, 2 maps, 7 diags. (illus. 34-42).
- Addendum to a report on the estuary of the Delaware. By Henry Mitchell. Report for 1887, app. 13, p. 269-273. [Supplementary to report for 1883, app. 8, p. 239-245.]
- Report on the results of the physical surveys of New York Harbor. By Henry Mitchell. Report for 1887, app. 15, p. 301-311, 1 fig., 6 diags. (illus. 44-49).
- Tide levels and flow of currents in New York Bay and Harbor. By Henry L. Marindin. Report for 1888, app. 9, p. 405-408, 12 maps.
- Same, abstract. Bull., no. 3, p. 7-12, 2 maps. 1888.
- Encroachment of the sea upon the coast of Cape Cod, Massachusetts, as shown by comparative surveys. By Henry L. Marindin. Report for 1889, app. 12, p. 403-407, 1 map.
- Cross-sections of the shore of Cape Cod between Chatham and the Highland light-house. By Henry L. Marindin. Report for 1889, app. 13, p. 409-457, 1 map.
- Recent changes in the south inlet into Edgartown Harbor, Marthas Vineyard. By Henry L. Whiting. Report for 1889, app. 14, p. 459, 460, 1 map.
- Gulf Stream explorations—Observations of currents, 1888 and 1889. By J. E. Pillsbury. Report for 1889, app. 16, p. 467-477, 8 maps, 12 diags.
- Currents of New York Bay and Harbor. Compiled by B. A. Colonna from the notes of a physical survey by H. L. Marindin. Bull., no. 8, p. 41-43. 2d ed. 1889.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Report on the sounds and estuaries of North Carolina with reference to oyster culture. By Francis Winslow. Bull., no. 10, p. 51-136, 2 maps, 1 diag. 1880.
- A syphon tide-gauge for the open seacoast. By Henry L. Marindin. Bull., no. 12, p. 143-146, 1 diag. 1880.
- On the use of observations of currents for prediction purposes. By John F. Hayford. Report for 1890, app. 14, p. 691-703.
- Comparison of the predicted with the observed times and heights of high and low water at Sandy Hook, New Jersey, during the year 1889. A report by Alex. S. Christie of the results of an investigation made under his direction by John F. Hayford. Report for 1890, app. 15, p. 705-714, 2 diags.
- On the reduction of hydrometer observations of salt-water densities. Submitted for publication, February 18, 1890, by O. H. Tittmann. Revised for republication, February 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277.
- On the changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by a comparison of surveys made between 1835, 1867, and 1890. By Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps.
- Cross-sections of the shore of Cape Cod, Massachusetts, between the Cape Cod and Long Point light-houses. By Henry L. Marindin. Report for 1891, pt. 2, app. 9, p. 289-341.
- On observations of currents with the direction-current meter in the Straits of Florida and in the Gulf of Mexico, 1891. By E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl., 1 map, 7 diags.
- On the sounds and estuaries of Georgia with reference to oyster culture. By J. C. Drake. Bull., no. 19, p. 179-209, 7 maps. 1891.
- Changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor, as shown by a comparison of surveys made between 1867 and 1890. By H. L. Marindin. Bull., no. 24, p. 233-235. 1891.
- On the tides and currents in the harbor of Edgartown and in Katama Bay, Marthas Vineyard. By Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diags.
- On the changes in the ocean shore lines of Nantucket Island, Massachusetts, from a comparison of surveys made in the years 1846 to 1887 and in 1891. By Henry L. Marindin. Report for 1892, pt. 2, app. 6, p. 243-252, 1 map, 3 diags.
- Manual of tides. Part III. Some connections between harmonic and nonharmonic quantities, including applications to the reduction and prediction of tides. By Rollin A. Harris. Report for 1894, pt. 2, app. 7, p. 125-262, 1 fig., 3 diags.
- Report on the changes in the depths on the bar at the entrance to Nantucket inner harbor, Massachusetts, between the years 1888 and 1893. By H. L. Marindin. Report for 1895, app. 5, p. 347-354, 4 diags.
- Notes on the specific gravity of the waters of the Gulf of Mexico and the Gulf Stream. By A. Lindenkohl. Report for 1895, app. 6, p. 355-369, 8 figs., 2 maps.
- Compilation of the most recent information relative to the harbors, anchorages, and dangers to navigation in the vicinity of Chatham and Peril straits and Cooks Inlet, Alaska. Arranged and compiled by Hugh Rodman. Report for 1896, app. 11, p. 373-393.
- Notes relating to self-registering tide gauges as used by the U. S. Coast and Geodetic Survey. By J. F. Pratt. Report for 1897, app. 7, p. 313-318, 2 figs., 3 pls.
- Problems in physiography, concerning salinity and temperature of the Pacific Ocean. By A. Lindenkohl. Report for 1898, app. 9, p. 463-473, 1 fig., 2 diags.
- Alaska. Hydrographic notes and sailing directions relating to portions of Alaska from Dixon Entrance to Yakutat Bay, including reconnaissance surveys of Cordova Bay, Bucarelli Bay, and Red Fish Bay. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 37, p. 110-118, 3 maps. 1899.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Alaska. Hydrographic notes, sailing directions, and charts of surveys relating to the vicinity of Prince William Sound, Cook Inlet, Kodiak Island, and route from Unalaska to Chignik, through Unimak Pass and inside the Islands. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 38, p. 119-142, 6 maps. 1899.
- Alaska. Predicted times of slack water at Seymour Narrows, Discovery Passage, British Columbia, and at Sergius Narrows, Peril Strait, Alaska, from May to December, 1899. Prepared from observations by E. K. Moore. Bull., no. 39, p. 143-150. 1899.
- Channel and harbor sweep. Description by D. B. Wainwright. Report for 1903, app. 6, p. 1005-1010, 1 view.
- Manual of tides. Part IVb. Cotidal lines for the world. By R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus.
- Long wire sweep. By D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diag.
- General instructions for coast surveys in the Philippine Islands. 92 pp., 15 figs. 1906.
- Manual of tides. Part V. Currents, shallow-water tides, meteorological tides, and miscellaneous matters. By R. A. Harris. Report for 1907, app. 6, p. 231-546. 22 diag. 7 charts.
- Survey of oyster bars, Anne Arundel County, Md. Description of boundaries and landmarks, and report of work of United States Coast and Geodetic Survey in cooperation with Maryland Shell Fish Commission. By C. C. Yates. 106 pp., 1 map. 1907.
- Survey of oyster bars, Somerset County, Md. Description of boundaries and landmarks, and report of work of the United States Coast and Geodetic Survey in cooperation with the United States Bureau of Fisheries and the Maryland Shell Fish Commission. By C. C. Yates. 118 pp., map: 1908.
- Same, Wicomico County, Md. By C. C. Yates. 54 pp., map. 1909.
- Same, Worcester County, Md. By C. C. Yates. 67 pp., 1 map. 1909.
- Same, Calvert County, Md. By C. C. Yates. 94 pp., 1 map. 1910.
- Same, Charles County, Md. By C. C. Yates. 62 pp., 1 map. 1911.
- Description of long wire drag. By N. H. Heck. 21 pp. illus. 1910.
- Table of depths for channels and harbors, coasts of the United States, including Porto Rico, the Hawaiian Islands, and the Philippine Islands. (Replaces Bull. no. 36.) 159 pp. 1910.
- Arctic tides. By R. A. Harris. 103 pp., 3 charts. 1911.

COAST PILOTS.

These are a series of volumes covering the continental coasts of the United States, Porto Rico, and a portion of Alaska, containing descriptions of the coast and harbors, sailing directions, and general information, etc., for the use of mariners. They are corrected to date of issue as nearly as practicable, and new editions issued from time to time.

- U. S. Coast Pilot: Atlantic coast. Parts I-II. From St. Croix to Cape Ann. 2d ed. 1903. 243 pp., 3 maps. 50 cents.
- Same, Part III. From Cape Ann to Point Judith. 2d ed. 1903. 199 pp., 2 maps, 1 illus. 50 cents.
- Same, Part IV. From Point Judith to New York. 5th ed. 1909. 212 pp., 3 maps, 1 illus. 50 cents.
- Same, Part V. From New York to Chesapeake Bay entrance. 4th ed. 1909. 166 pp., 4 maps, 1 illus. 50 cents.
- Same, Part VI. Chesapeake Bay and tributaries. 3d ed. 1907. 192 pp., 2 maps. 50 cents.
- Same, Part VII. From Chesapeake Bay entrance to Key West. 3d ed. 1906. 223 pp., 3 maps, 3 illus. 50 cents.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

COAST PILOTS—continued.

- U. S. Coast Pilot: Atlantic coast. Part VIII. Gulf of Mexico from Key West to the Rio Grande. 3d ed. 1908. 177 pp., 4 illus. 50 cents.
- U. S. Coast Pilot: Pacific coast. California, Oregon, and Washington. 2d ed. 1909. 251 pp., 5 maps, 6 illus. 50 cents.
- Same, Alaska. Part I. Dixon entrance to Yakutat Bay, with inland passage from Juan de Fuca Strait to Dixon entrance. 5th ed. 1908. 239 pp., 9 pls., 5 charts. 50 cents.
- U. S. Coast Pilot: West Indies. Porto Rico. 1906. 116 pp., 1 map, 1 chart, 14 illus. 50 cents.
- Alaska. Coast Pilot notes from Yakutat Bay to Cook Inlet and Shellkof Strait. 2d ed. 82 pp. 1910.
- Alaska. Coast Pilot notes on Bering Sea and the Arctic Ocean. 1908. 65 pp. (Replaces Bulletin No. 40.)

TIDE TABLES.

These are issued annually and contain predictions for the ports of the United States, including Porto Rico, Alaska, Hawaii, and the Philippine Islands, and also predictions for the principal foreign ports:

Tide tables for the world. 50 cents.

Tide tables for the Atlantic coast of the United States, including Canada and the West Indies. (Reprinted from the Tide tables for the world.) 15 cents.

Tide tables for the Pacific coast of the United States. (Reprinted from the Tide tables for the world.) 10 cents.

CHART CATALOGUES.

These contain lists of the latest coast pilots, tide tables, sailing directions, miscellaneous maps and plans, and charts issued by the Survey:

Catalogue of charts, coast pilots, and tide tables. 1911. 228 pp.

Catalogue of charts, sailing directions, and tide tables of the Philippine Islands. 1910. 54 pp.

SAILING DIRECTIONS FOR THE PHILIPPINE ISLANDS.

These contain descriptions of the coasts and harbors of the Philippine Islands, together with sailing directions for those coasts and harbors:

Philippine Islands: Sailing directions. Section I. North and west coasts of Luzon and adjacent islands from Cape Engaño to Manila Bay. 3d ed. 1906. 101 pp. (Supp. 1909. 5 pp.)

Same, Section II. Southwest and south coasts of Luzon and adjacent islands, between Manila and San Bernardino Strait. 4th ed. 1910. 102 pp.

Same, Section III. Coast of Panay, Negros, Cebu, and adjacent islands. 3d ed. 1906. 109 pp.

Same, Section IV. Coasts of Samar and Leyte, and the east coast of Luzon. 3d ed. 1908. 168 pp.

Same, Section V. Coasts of Mindanao and adjacent islands. 3d ed. 1910. 135 pp.

NOTICE TO MARINERS.

These contain corrections that are to be applied to charts in order to keep them up to date. On January 1, 1908, the monthly Notice to Mariners, excepting those pertaining to the Philippine Islands, were, by direction of the Secretary of Commerce and Labor, consolidated with and made a part of the weekly Notice to Mariners issued by the Bureau of Lighthouses.

Notice to mariners. Philippine Islands. Issued monthly.

COAST AND GEODETIC SURVEY—Continued.

TOPOGRAPHY.

- Special report on the comparative progress and expenditure of the Coast Survey, in different years. Foreign surveys, etc. 18 pp. 1858.
- Solution of the "three-point problem" by determining the point of intersection of a side of the given triangle with a line from the opposite point to the unknown point. By A. Lindenkohl. Report for 1869, app. 14, p. 235, 1 diag.
- Type forms of topography, Columbia River. By E. Hergeshelmer. Report for 1881, app. 7, p. 124-125, 7 figs., 1 map.
- Proceedings of the Topographical Conference held at Washington, D. C., January 18 to March 7, 1892. Report for 1891, pt. 2, app. 16, p. 565-746, 25 figs., 2 pls., 1 map, 5 diags.
- Phototopography as practiced in Italy under the auspices of the Royal Military Geographical Institute, and as practiced in the Dominion of Canada under the auspices of the department of the Interior. Also a short historical review of other phototopographic surveys and publications on the subject. By J. A. Flemer. Report for 1893, pt. 2, app. 3, p. 37-116, 30 figs., 2 pls.
- Subdivision 1. List of original topographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2209, inclusive. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2222, inclusive. Report for 1896, app. 11, p. 390-516.
- A plane table manual. By D. B. Wainwright. Report for 1905, app. 7, p. 239-342, 27 diags., 6 illus.

TERRESTRIAL MAGNETISM.

- New discussion of the distribution of the magnetic declination on the coast of the Gulf of Mexico, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^a
- New discussion of the distribution of the magnetic declination on the coast of Virginia, North Carolina, South Carolina, and Georgia, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 24, p. 256-259, 1 map.^a
- Development of Bessel's function for the effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.
- Report on the results from the observations made at the magnetical observatory, on Capitol Hill, Washington, D. C., between 1867 and 1869. By Charles A. Schott. Report for 1869, app. 9, p. 199-207.
- New investigation of the secular changes in the declination, the dip, and the intensity of the magnetic force, at Washington, D. C. By Charles A. Schott. Report for 1870, app. 14, p. 107-110.
- On a chart of the magnetic declination in the United States, constructed by J. H. Hilgard. Report for 1876, app. 21, p. 400, 401, 1 map.
- On the secular change of magnetic declination in the United States and at some foreign stations. By Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.
- An inquiry into the variation of the compass off the Bahama Islands, at the time of the landfall of Columbus in 1492. By Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map (sketch 84).
- Terrestrial magnetism. Collection of results for declination, dip, and intensity, from observations made by the United States Coast and Geodetic Survey between 1833 and 1882, July. By Charles A. Schott. Report for 1881, app. 9, p. 159-224.

^a Bound with 16, 17, 18, 19, 20, 21, and 25 of Report for 1861.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Cont'd.

Account and results of magnetic observations made under the direction of the United States Coast and Geodetic Survey in cooperation with the United States Signal Office, at the United States polar station Ooqlaamie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 figs., 1 map (illus. 34).

The geographical distribution and secular variation of the magnetic dip and intensity in the United States. By Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diag. (illus. 19-24).

Collection of some magnetic variations off the coasts of California and Mexico, observed by Spanish navigators in the last quarter of the eighteenth century. Communicated by George Davidson. Report for 1885, app. 7, p. 275-284.

The magnetic work of the Greely arctic expedition, 1881-1884. Abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210.

The secular variation of the magnetic declination in the United States and at some foreign stations. By Charles A. Schott. 7th ed., June, 1889. Report for 1888, app. 7, p. 177-312, 4 maps, 2 diag.

The value of the "Arcano del mare" with reference to our knowledge of the magnetic declination in the earlier part of the seventeenth century. By Charles A. Schott. Bull., no. 5, p. 25-28, 2 maps. 1888.

Secular variation in the position of the agonic line of the North Atlantic and of America, between the epochs 1500 and 1900 A. D. By Charles A. Schott. Bull., no. 6, p. 29-43, 3 maps. 1888.

Historical review of the work of the Coast and Geodetic Survey in connection with terrestrial magnetism. By Charles A. Schott. Bull., no. 7, p. 35-40, 4 maps. 1888.

The distribution of the magnetic declination in the United States for the epoch 1890. (2d ed.) By Charles A. Schott. Report for 1889, app. 11, p. 233-402, 3 maps, 1 diag.

The magnetic observations made on Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Bull., no. 20, 211-214. 1891. (Reprinted in Report for 1890, pt. 2, app. 5, p. 269-273.)

Results of the observations made at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, between the years 1882 and 1889. Part I. Results of the absolute measures of the direction and intensity of the earth's magnetic force. Discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, between the years 1882 and 1889. Part II. Results of the differential measures of the magnetic declination. Discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diag.

The secular variation and annual change of the magnetic force at stations occupied by E. D. Preston, in connection with the U. S. eclipse expedition to the west coast of Africa, in 1889-90, in charge of D. P. Todd. Discussion and report by C. A. Schott. Submitted for publication March 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-39.

Same, abstract. Bull., no. 23, p. 225-232. (1891.)

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, between the years 1882 and 1889. Part III. Results of the differential measures of the horizontal intensity. Discussion and report by Charles A. Schott. Report for 1891, pt. 2, app. 4, p. 41-267, 10 diag.

On the magnetic observations made during Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Submitted for publication as a bulletin, December 12, 1890, and first published February 26, 1891. Discussion by C. A. Schott. Report for 1891, pt. 2, app. 5, p. 269-273.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Cont'd.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part IV. Results of the differential measures of the vertical force component, and of the variations of dip and total force. Discussion and report by Charles A. Schott. Report for 1892, pt. 2, app. 7, p. 253-327, 2 diags.

Results of magnetic observations at stations in Alaska and in the northwest territory of the Dominion of Canada. Observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, in the years 1889, 1890, and 1891. Discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.

Distribution of the magnetic declination in Alaska and adjacent waters for the year 1895, and construction of an isogonic chart for the same epoch. By C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.

Same, abstract. Bull., no. 34, p. 127-134. (1895.)

The secular variation in direction and intensity of the earth's magnetic force in the United States and in some adjacent foreign countries. By Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diags.

The direction and intensity of the earth's magnetic force at San Francisco, Cal. By C. A. Schott. Bull., no. 33, p. 121-126. 1895.

Distribution of the magnetic declination in the United States for the epoch January 1, 1900. 3d ed. By Charles A. Schott. Report for 1896, app. 1, p. 147-235, 3 illus.

Distribution of the magnetic dip and the magnetic intensity in the United States for the epoch January 1, 1900. (2d ed.) By Charles A. Schott. Report for 1897, app. 1, p. 159-196, 3 maps.

Results of magnetic observations made in connection with the Greenland expedition of 1896, under charge of A. E. Burton. By G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag.

California, Bay of San Francisco. Magnetic ranges for determining the deviation of the compass, with short explanations of how to find the deviation and error of the compass. Arranged and compiled by J. C. Gilmore. Special publication no. 1. 7 pp., 5 pls., 1 map. 1898.

General report upon the magnetic survey of North Carolina, with a brief historical sketch of the fundamental phenomena of the earth's magnetism. By James B. Baylor and Daniel L. Hazard, under the direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pls., 2 maps.

The magnetic work of the United States Coast and Geodetic Survey. By L. A. Bauer. Report for 1899, app. 10, p. 939-952.

Magnetic survey of North Carolina. Values of the magnetic declination at the county seats from 1750 to 1910. By D. L. Hazard. Bull., no. 41, p. 1-12. 1901.

The magnetic observatories of the United States Coast and Geodetic Survey in operation on July 1, 1902. By L. A. Bauer and J. A. Fleming. Report for 1902, app. 5, p. 301-331, 8 views, 3 maps and sketches, 5 diags.

Magnetic dip and intensity observations, January, 1897, to June 30, 1902. By D. L. Hazard. With preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1902, and June 30, 1903. By L. A. Bauer. Report for 1903, app. 5, p. 931-1004.

Same between July 1, 1903, and June 30, 1904. By L. A. Bauer. Report for 1904, app. 3, p. 207-255, 2 illus.

Same between July 1, 1904, and June 30, 1905. By L. A. Bauer. Report for 1905, app. 3, p. 105-192.

Same between July 1, 1905, and June 30, 1906. By L. A. Bauer. Report for 1906, app. 3, p. 105-210, 1 illus.

Distribution of the magnetic declination in the United States for January 1, 1905. By L. A. Bauer. Report for 1906, app. 4, p. 211-226, 1 map.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Cont'd.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1906, and June 30, 1907. By R. L. Faris. Report for 1907, app. 5, p. 157-230.

Same between July 1, 1907, and June 30, 1908. By R. L. Faris. Report for 1908, app. 3, p. 69-165.

United States magnetic tables and magnetic charts for 1905. By L. A. Bauer. 154 pp., 7 charts, 1 diag. 1908.

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Cheltenham, Md., 1901-1904. By D. L. Hazard. 206 pp., 56 illus. 1909.

Same, 1905 and 1906. By D. L. Hazard. 110 pp., 29 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. 93 pp., 14 figs. 1911.

Results of observations made at the Coast and Geodetic Survey magnetic observatory near Honolulu, Hawaii, 1902-1904. By D. L. Hazard. 180 pp., 1 map, 5 illus., 47 figs. 1909.

Same, 1905 and 1906. By D. L. Hazard. 112 pp., 32 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. (In press.)

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Vieques, P. R., 1903-4. By D. L. Hazard. 70 pp., 1 illus., 1 fig. 1909.

Same, 1905 and 1906. By D. L. Hazard. 110 pp., 26 figs. 1910.

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Sitka, Alaska, 1902-1904. By D. L. Hazard. 129 pp., 1 map, 2 illus., 49 figs. 1909.

Same, 1905 and 1906. By D. L. Hazard. 115 pp., 36 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. 94 pp., 23 figs. 1911.

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Baldwin, Kans., 1901-1904. By D. L. Hazard. 138 pp. 1909.

Same, 1905 and 1906. By D. L. Hazard. 107 pp., 26 figs. 1910.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1908, and June 30, 1909. By R. L. Faris. Report for 1909, app. 3, p. 75-149.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1909, and June 30, 1910. By R. L. Faris. Report for 1910, app. 3, p. 73-141.

Distribution of the magnetic declination in Alaska and adjacent regions for 1910. By R. L. Faris. Report for 1909, app. 4, p. 151-179, 4 figs., 4 text figs., 1 map in pocket.

Principal facts of the earth's magnetism, and methods of determining the true meridian and the magnetic declination. (Reprinted from United States magnetic declination tables for 1902.) 99 pp., 1 map, 9 illus., 18 figs. 1909.

Directions for magnetic measurements. By D. L. Hazard. 131 pp., 10 text figs. 1911.

CHART CONSTRUCTION.

A quincuncial projection of the sphere. By C. S. Peirce. Report for 1877, app. 15, p. 191, 192, 1 map.

A treatise on projections. By Thomas Craig. Part I. Mathematical theory of projections. Part II. Construction of projections. 242 pp., 65 figs. 1882.

Notes on an original manuscript chart of Bering's expedition of 1725-1730, and on an original manuscript chart of his second expedition; together with a summary of a journal of the first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version. By William Healey Dall. Report for 1890, app. 10, p. 759-774, 2 maps.

Notes on an early chart of Long Island Sound and its approaches. By Charles Hervey Townshend. Report for 1890, app. 20, p. 775-777, 1 map.

Tables for a polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 3d ed. [Replaces app. 6, Report for 1894 and Special publication no. 5.] 189 pp., 1 chart. 1910.

COAST AND GEODETIC SURVEY—CHART CONSTRUCTION—Continued.

Notes relative to the use of charts issued by the United States Coast and Geodetic Survey. By D. B. Wainright. Special publication no. 6. 23 pp., 1 fig., 1 pl., 6 diags. 1900.

ALLIED SUBJECTS.

Report on the Nicaragua route for an interoceanic ship-canal, with a review of other proposed routes; made by Maximilian Von Sonnenstern to the minister of public works of Nicaragua. Translated for the U. S. Coast Survey. 22 pp., 1 map. 1874.

A new system of binary arithmetic. By Benjamin Peirce. Report for 1876, app. 6, p. 81, 82.

Hypsometric formula based upon thermodynamic principles. By Chas. A. Schott. Report for 1876, app. 19, p. 388-390.^a

A statement concerning the relation of the lawful standards of measure of the United States to those of Great Britain and France. By J. E. Hilgard. Report for 1876, app. 22, p. 402-406.

Report on the blue clay of the Mississippi River. By George Little. Report for 1880, app. 12, p. 145-171, sketch 48.

On the length of a nautical mile. By J. E. Hilgard. Report for 1881, app. 12, p. 354, 356.

General properties of the equations of steady motion. By Thos. Craig. 26 pp. 1881.

Historical sketch of the U. S. Coast and Geodetic Survey. 8 pp. 1884.

A plea for light on St. George's bank. By Henry Mitchell. Report for 1885, app. 11, p. 483-485.

An examination of some of the early voyages of discovery and exploration on the Northwest coast of America from 1539 to 1603. By George Davidson. Report for 1886, app. 7, p. 155-253, 1 map (illus. 18).

Resources of and developments in Alaska. By George Davidson. Bull., no. 4, p. 13-24. 1888.

Verification of weights and measures. By O. H. Tittman. Bull., no. 15, p. 157, 158, 1 diag. 1889.

The relation between the metric standards of length of the U. S. Coast and Geodetic Survey and the U. S. Lake Survey. By C. A. Schott and O. H. Tittmann. Bull., no. 17, p. 165-173. 1889.

Report in relation to a portion of boundary line in dispute between the States of Maryland and Virginia. By Henry L. Whiting. Report for 1890, app. 11, p. 621-623.

On an approximate method for computing probable error. By Chas. H. Kummell. Report for 1890, app. 13, p. 685-687.

The determination, by the method of least squares, of the relation between two variables, connected by the equation $Y=AX+B$, both variables being liable to errors of observation. By Mansfield Merriman, Ph. D. Report for 1890, app. 13, p. 687-690.

On the relation of the yard to the meter. By O. H. Tittmann. Report for 1890, app. 16, p. 715-720. [This paper is a second edition of Bulletin 9, revised by the author, with statement of later comparisons, confirming his results.]

Historical account of United States standards of weights and measures, customary and metric; of the inception and construction of the national prototypes of the meter and the kilogramme; of their transportation from Paris to Washington; of their official opening and certification, and of their deposit in the office of weights and measures. Compiled by O. H. Tittmann. Report for 1890, app. 18, p. 735-753, 1 fig., 1 pl.

On the least square adjustment of weighings. A report prepared by direction of O. H. Tittmann. By John F. Hayford. Report for 1892, app. 10, p. 515-527.

State laws authorizing officers of the U. S. Coast and Geodetic Survey to enter upon lands within State limits for the purposes of the Survey. Report for 1893, app. 1, p. 1-18.

^a Bound with appendixes 16, 17, and 18 of Report for 1876.

COAST AND GEODETIC SURVEY—ALLIED SUBJECTS—Continued.

Fundamental standards of length and mass. Report for 1893, pt. 2, app. 6, p. 165-172. [This paper was first published as Bulletin 26, and was republished to give it a more permanent form. Appended to it will be found a third edition of the tables for converting customary and metric weights and measures.]

Units of electrical measure. Report for 1893, pt. 2, app. 7, p. 173-176.

Part I. A historical account of the boundary line between the States of Pennsylvania and Delaware. **Part II.** Detailed account of work on the Pennsylvania and Delaware boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig., 3 maps, 2 facsimiles.

On the preparation and arrangement of the exhibit of the U. S. Coast and Geodetic Survey at the World's Columbian Exposition. By D. B. Wainwright. Report for 1893, app. 10, p. 425-439.

Units of electrical measure. Approved for publication December 27, 1893. Bull., no. 30, p. 99-104. 1894.

Legal units of electrical measure in the United States. Approved August 12, 1894. Bull., no. 31, p. 105-108. 1894.

General statement of the administration and work of the Coast and Geodetic Survey, with historical sketch from 1807 to 1898. Extract from report of Superintendent for the fiscal year 1897-98. By H. S. Pritchett. p. 21-28, 1 sketch. 1899.

Methods and results of the U. S. Coast and Geodetic Survey. [Leaflets printed for distribution at the Pan-American Exposition, Buffalo, N. Y.] Spanish edition. Issued separately. 1901.

Table for converting customary and metric weights and measures. 4 pp. 1900.

List and catalogue of the publications issued by the U. S. Coast and Geodetic Survey, 1816-1902. Reprint, with Supplement, 1903-1908. By E. L. Burchard and R. M. Brown. 237, 44 pp. 1908.

Same. Supplement to August, 1908, inclusive. 1908.

General instructions for the field work of the Coast and Geodetic Survey. 127 pp. 1908.

Coast and Geodetic Survey in Alaska. 8 pp. 1909.

The work of the Coast and Geodetic Survey. 2d ed. 47 pp., 5 illus., 1 diag. 1909.

BUREAU OF CORPORATIONS.

Annual Report of the Commissioner of Corporations for 1910. 7 pp. 1911. [There are also on hand a limited supply of each of the annual reports of the Commissioner from 1904 to 1909, inclusive.]

Report of the Commissioner of Corporations on the beef industry. Mar. 3, 1905. xxxvi+315 pp., 15 diags. 1905.

Report of the Commissioner of Corporations on the transportation of petroleum. May 2, 1906. xxvii+512 pp., 40 maps and diags. 1906.

Statement of the Commissioner of Corporations in answer to the allegations of the Standard Oil Company concerning its conviction at Chicago for accepting concessions on shipments over the Chicago and Alton Railroad. A discussion of the allegations in the pamphlet entitled "From the directors of the Standard Oil Company to its employees and stockholders," Dec. 30, 1907. 11 pp. 1907.

Report of the Commissioner of Corporations on the petroleum industry. Part I. Position of the Standard Oil Company in the petroleum industry. May 20, 1907. xxi+396 pp., 8 maps. 1907.

Same, Part II. Prices and profits. Aug. 5, 1907. xlv+965 pp., 3 maps, 71 diags. 1907.

Report of the Commissioner of Corporations on cotton exchanges. Part I. Methods of establishing grade differences for future contracts. May 4, 1908. xxi+369 pp., 11 charts. 1908. [Also Summary.]

Same, Part II. Classification of cotton. **Part III.** Range of grades deliverable on contracts. May 29, 1908. xvi+217 pp., 1 illus. 1908. [Also Summary.]

BUREAU OF CORPORATIONS—Continued.

- Report of the Commissioner of Corporations on cotton exchanges. Part IV. Effect of future contracts on prices of cotton. Part V. Influence of producers' organizations on prices of cotton. Dec. 6, 1909. xxi+362 pp., 24 charts and diagrs. 1909. [Also Summary.]
- Report of the Commissioner of Corporations on the tobacco industry. Part I. Position of the tobacco combination in the industry. Feb. 25, 1909. xxiii+489 pp. 1909.
- Same, Part II. Capitalization, investment, and profits. (In press.)
- Taxation of corporations. Part I. New England. Report on the system of taxing manufacturing, mercantile, transportation, and transmission corporations in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. May 17, 1909. vii+156 pp. 1909.
- Same, Part II. Middle Atlantic States [New York, New Jersey, Pennsylvania, Delaware, Maryland, and in the District of Columbia]. June 6, 1910. xiv+115 pp. 1910.
- Same, Part III. Eastern Central States [Ohio, Indiana, Illinois, Michigan, and Wisconsin. (In press.)
- Report of the Commissioner of Corporations on transportation by water in the United States. Part I. General conditions of transportation by water. July 12, 1909. xviii+614 pp., 1 map. 1909.
- Same, Part II. Water-borne traffic. July 19, 1909. xxiv+402 pp., 5 maps. 1909.
- Same, Part III. Water terminals. Sept. 26, 1910. xxii+436 pp., 18 charts and diagrs. 1910.
- Summary of report of the Commissioner of Corporations on the lumber industry. Part I. Standing timber. Feb. 13, 1911. 38 pp., 1 chart. 1911.

BUREAU OF FISHERIES.

The publications of the Bureau of Fisheries are now issued under a plan somewhat different from that formerly followed.

Bound volumes are no longer distributed. The Annual Report now consists of only a brief administrative report of the Commissioner, in pamphlet form. The papers formerly published as appendices to the report of the Commissioner, with it constituting the Annual Report volume, are now issued as small documents independent of any other publication. The papers composing the Bulletin, while still forming an annual volume with continuous pagination, are to be had only as separates, for which, however, there will be issued a general title-page, table of contents, and index at the end of each year.

In the following pages are listed, by serial numbers, all of the pamphlets now available.

Doc. No.

21. Cheap fixtures for the hatching of salmon. By Charles G. Atkins. Report for 1878, p. 945-966, 15 text fig. 1880.
142. Notes on the fishes from the lowlands of Georgia, with a description of a new species (*Opsopoeodus bollmani*). By Charles H. Gilbert. Bulletin, vol. viii, 1888, p. 225-229. 1891.
214. Report upon the European methods of oyster-culture. By Bashford Dean. Bulletin, vol. xi, 1891, p. 357-406, 2 text fig., pl. Lxxv-Lxxxviii. 1893.
269. Recent experiments in sturgeon hatching on the Delaware River. By Bashford Dean. Bulletin, vol. xiii, 1893, p. 335-339, 1 text fig. 1894.
293. Notes on a reconnaissance of the fisheries of the Pacific coast of the United States in 1894. By Hugh M. Smith. Bulletin, vol. xiv, 1894, p. 223-288. 1894.
303. The fishes of the Neuse River Basin. By Barton W. Evermann and Ulysses O. Cox. Bulletin, vol. xv, 1895, p. 303-310. 1896.

BUREAU OF FISHERIES—Continued.

Doc. No.

305. Report of a reconnaissance of the oyster beds of Mobile Bay and Mississippi Sound, Alabama. By Homer P. Ritter. Bulletin, vol. xv, 1895, p. 325-339, pl. 56-63. 1896.
307. The sources of marine food. By James I. Peck. Bulletin, vol. xv, 1895, p. 351-368, pl. 64-71. 1896.
309. A review of the history and results of the attempt to acclimatize fish and other water animals in the Pacific States. By Hugh M. Smith. Bulletin, vol. xv, 1895, p. 379-472, pl. 73-83. 1896.
310. Report upon the work of the U. S. Fish Commission steamer *Albatross* for the year ending June 30, 1893. By Z. L. Tanner. Report for 1893, p. 305-341, pl. 15-18. 1896.
311. Report of the representative of the U. S. Fish Commission at the World's Columbian Exposition. By Tarleton H. Bean. Report for 1894, p. 177-196, pl. 1-5. 1896.
312. Report upon ichthyological investigations in western Minnesota and eastern North Dakota. By Albert J. Woolman. Report for 1893, p. 343-373, pl. 19. 1896.
314. Establishment of stations for the propagation of salmon on the Pacific coast. By John J. Brice. Report for 1893, p. 387-392. 1896.
321. Report upon the operations of the U. S. Fish Commission steamer *Albatross* for the year ending June 30, 1894. By Z. L. Tanner and F. J. Drake. Report for 1894, p. 197-278, pl. 6-8. 1896.
322. Description of a closing tow net for submarine use at all depths. By C. H. Townsend. Report for 1894, p. 279-282, pl. 9, 10. 1896.
323. The whitefishes of North America. By Barton W. Evermann and Hugh M. Smith. Report for 1894, p. 283-324, 1 text fig., pl. 11-28. 1896.
325. A review of the foreign fishery trade of the United States. By Charles H. Stevenson. Report for 1894, p. 431-571. 1896.
326. The ichthyological collections of the U. S. Fish Commission steamer *Albatross* during the years 1890 and 1891. By Charles H. Gilbert. Report for 1893, p. 393-476, pl. 20-35. 1896.
327. An annotated catalogue of the fishes known from the State of Vermont. By Barton W. Evermann and W. C. Kendall. Report for 1894, p. 579-604.
328. A report upon the fishes of southwestern Minnesota. By Ulysses O. Cox. Report for 1894, p. 605-616. 1896.
332. Report upon the investigations of the U. S. Fish Commission steamer *Albatross* for the year ending June 30, 1895 (abstract). By F. J. Drake. Report for 1895, p. 125-168. 1896.
333. Notes on Biscayne Bay, Florida, with reference to its adaptability as the site of a marine hatching and experiment station. By Hugh M. Smith. Report for 1895, p. 169-191. 1896.
338. Report of the representatives of the U. S. Fish Commission at the Cotton States and International Exposition at Atlanta, Ga., in 1895. By W. de C. Ravenel. Report for 1896, p. 147-167, 3 text fig., pl. 11-21. 1897.
339. Notes on the extension of the recorded range of certain fishes of the United States coast. By Hugh M. Smith and William C. Kendall. Report for 1896, p. 169-176. 1897.
340. Notes on the food of four species of the cod family. By William C. Kendall. Report for 1896, p. 177-186. 1897.
343. Report of a survey of the oyster regions of St. Vincent Sound, Apalachicola Bay, and St. George Sound, Florida. By Franklin Swift. Report for 1896, p. 187-221, pl. 21. 1897.
344. Report of the Commissioner for the fiscal year ending June 30, 1897, including the reports of the divisions of fish culture, scientific inquiry, and fisheries. By John J. Brice. Report for 1897, p. i-clxxi. 1898.
346. Artificial propagation of the Atlantic salmon, rainbow trout, and brook trout. Manual of Fish Culture, p. 17-90, 14 text fig., pl. 11-29. 1900.
347. Artificial propagation of the black bass, crappies, and rock bass. Manual of Fish Culture, p. 147-163, 2 text fig., pl. 47-50. 1900.
349. Oysters and methods of oyster culture, with notes on clam culture. By H. F. Moore. Manual of Fish Culture, p. 263-340, 6 text fig., pl. i-xviii. 1900.

BUREAU OF FISHERIES—Continued.

Doc. No.

355. Report of observations made on board the U. S. Fish Commission steamer *Albatross* during the year ending June 30, 1896. Report for 1896, p. 357-386. 1897.
356. Observations upon the herring and herring fisheries of the northeast coast, with special reference to the vicinity of Passamaquoddy Bay. By H. F. Moore. Report for 1896, p. 387-442, pl. 60-62. 1897.
357. The salmon fishery of Penobscot Bay and River in 1895 and 1896. By Hugh M. Smith. Bulletin, vol. xvii, 1897, p. 113-124, pl. 4 and 5. 1898.
359. Notes on the halibut fishery of the northwest coast in 1896. By A. B. Alexander. Bulletin, vol. xvii, 1897, p. 141-144. 1898.
361. Statistics of the fisheries of the interior waters of the United States [for 1894]. By Hugh M. Smith. Report for 1896, p. 489-574. 1898.
362. Notes on the fisheries of the Pacific coast in 1895. By William A. Wilcox. Report for 1896, p. 575-659. 1898.
365. Methods of plankton investigation in their relation to practical problems. By Jacob Reighard. Bulletin, vol. xvii, 1897, p. 169-175. 1898.
366. The importance of extended scientific investigation. By H. C. Bumpus. Bulletin, vol. xvii, 1897, p. 177-180. 1898.
367. The utility of a biological station on the Florida coast in its relations to the commercial fisheries. By S. E. Meek. Bulletin, vol. xvii, 1897, p. 181-183. 1898.
368. Establishment of a biological station on the Gulf coast. By W. Edgar Taylor. Bulletin, vol. xvii, 1897, p. 185-188. 1898.
376. The Hudson River as a salmon stream. By A. Nelson Cheney. Bulletin, vol. xvii, 1897, p. 247-251. 1898.
377. A plea for the development and protection of Florida fish and fisheries. By James A. Henshall. Bulletin, vol. xvii, 1897, p. 253-255. 1898.
379. The restricted inland range of shad due to artificial obstructions, and its effect upon natural reproduction. By Charles H. Stevenson. Bulletin, vol. xvii, 1897, p. 265-271. 1898.
388. The methods, limitations, and results of whitefish culture in Lake Erie. By J. J. Stranahan. Bulletin, vol. xvii, 1897, p. 315-319. 1898.
390. The red-snapper fisheries; their past, present, and future. By Andrew F. Warren. Bulletin, vol. xvii, 1897, p. 331-335. 1898.
391. Some brief reminiscences of the early days of fish culture in the United States. By Livingston Stone. Bulletin, vol. xvii, 1897, p. 337-343. 1898.
393. Possibilities for an increased development of Florida's fishery resources. By John N. Cobb. Bulletin, vol. xvii, 1897, p. 349-351. 1898.
394. The utility and methods of mackerel propagation. By J. Percy Moore. Bulletin, vol. xvii, 1897, p. 353-361. 1898.
399. Report on mackerel investigations in 1897. By J. Percy Moore. Report for 1898, p. 1-22. 1899.
400. Reports on fishes obtained by the steamer *Albatross* in the vicinity of Santa Catalina Island and Monterey Bay. By Charles H. Gilbert. Report for 1898, p. 23-29, pl. 1 and 2. 1899.
401. Notes on the extent and condition of the alewife fisheries of the United States in 1896. By Hugh M. Smith. Report for 1898, p. 31-43. 1899.
403. The shad fisheries of the Atlantic coast of the United States. By Charles H. Stevenson. Report for 1898, p. 101-269. 1899.
404. List of fishes collected at the Revillagigedo Archipelago and neighboring islands. By David Starr Jordan and Richard Crittenden McGregor. Report for 1898, p. 273-284, pl. 4-7. 1899.
405. Report on investigations by the U. S. Fish Commission in Mississippi, Louisiana, and Texas in 1897. By Barton W. Evermann. Report for 1898, p. 285-310, pl. 8-36. 1899.
407. Report upon exhibit of the U. S. Fish Commission at the Tennessee Centennial Exposition in 1897. By W. de C. Ravenel. Report for 1898, p. 329-339, pl. 37. 1899.
409. List of fishes known to inhabit the waters of the District of Columbia and vicinity. By Hugh M. Smith and Barton A. Bean. Bulletin, vol. xviii, 1898, p. 179-187. 1899.

BUREAU OF FISHERIES—Continued.

Doc. No.

410. Notes on a collection of tide-pool fishes from Kadiak Island in Alaska. By Cloudsley Rutter. Bulletin, vol. xviii, 1898, p. 189-192. 1899.
411. The southern spring mackerel fishery of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 193-271. 1899.
412. Notice of a filefish new to the fauna of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 273-278, pl. 64. 1899.
415. The peripheral nervous system of the bony fishes. By C. Judson Herrick. Bulletin, vol. xviii, 1898, p. 315-320, 1 text fig. 1899.
416. The reappearance of the tilefish. By Hermon C. Bumpus. Bulletin, vol. xviii, 1898, p. 321-333. 1899.
419. Check list of the fishes of Florida. By Barton W. Evermann and William C. Kendall. Report for 1899, p. 35-103. 1899.
420. Statistics of the fisheries of the Gulf States [for 1897]. By Division of Statistics, C. H. Townsend in charge. Report for 1899, p. 105-169. 1899.
422. An inquiry into the feasibility of introducing useful marine animals into the waters of Great Salt Lake. By H. F. Moore. Report for 1899, p. 229-250, pl. 7. 1899.
423. A review of the fisheries in the contiguous waters of the State of Washington and British Columbia. By Richard Rathbun. Report for 1889, p. 251-350, pl. 8-16. 1899.
424. Experiments in photography of live fishes. By R. W. Shufeldt. Bulletin, vol. xix, 1899, p. 1-5, pl. 1-9. 1899.
425. Notes on the tide-pool fishes of California, with a description of four new species. By Arthur White Greeley. Bulletin, vol. xix, 1899, p. 7-20, 5 text fig. 1899.
426. The synaptas of the New England coast. By Hubert Lyman Clark. Bulletin, vol. xix, 1899, p. 21-31, pl. 10 and 11. 1899.
427. Descriptions of new genera and species of fishes from Porto Rico. By Barton Warren Evermann and Millard Caleb Marsh. Report for 1899, p. 351-362. 1899.
428. Descriptions of two new species of darters from Lake Maxinkuckee, Indiana. By Barton Warren Evermann. Report for 1899, p. 363-367. 1900.
429. The sturgeon fishery of Delaware River and Bay. By John N. Cobb. Report for 1899, p. 369-380, 2 text fig., pl. 18-21. 1900.
431. The gas-bubble disease of fish, and its cause. By F. P. Gorham. Bulletin, vol. xix, 1899, p. 33-37, pl. 12. 1900.
433. Descriptions of new species of fishes from the Hawaiian Islands belonging to the families of Labridæ and Scaridæ. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 45-65, 22 text fig. 1900.
434. Rotatoria of the United States, with especial reference to those of the Great Lakes. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 67-104, pl. 14-22. 1901.
435. A report of work on the Protozoa of Lake Erie, with especial reference to the laws of their movements. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 105-114. 1901.
436. Notes on a collection of fishes from the rivers of Mexico, with description of 20 new species. By David Starr Jordan and John O. Snyder. Bulletin, vol. xix, 1899, p. 115-147, 22 text fig. 1900.
437. Notes on the Florida sponge fishery in 1899. By Hugh M. Smith. Bulletin, vol. xix, 1899, p. 149-151. 1900.
438. Some chemical changes in the developing fish egg. By P. A. Levene. Bulletin, vol. xix, 1899, p. 153-155. 1900.
439. The free-swimming copepods of the Woods Hole region. By William Morton Wheeler. Bulletin, vol. xix, 1899, p. 157-192, 30 text fig. 1900.
442. On the movements of certain lobsters liberated at Woods Hole. By Hermon C. Bumpus. Bulletin, vol. xix, 1899, p. 225-230, pl. 27. 1900.
443. Improvements in preparing fish for shipment. By Ralph W. Tower. Bulletin, vol. xix, 1899, p. 231-235. 1900.
444. Report of a dredging expedition off the southern coast of New England, September, 1899. By Freeland Howe, jr. Bulletin, vol. xix, 1899, p. 237-240. 1900.

BUREAU OF FISHERIES—Continued.

Doc. No.

446. Fish parasites collected at Woods Hole in 1898. By Edwin Linton. Bulletin, vol. xix, 1899, p. 267-304, pl. 33-43. 1900.
447. Biological notes, No. 1. Bulletin, vol. xix, 1899, p. 305-310. 1900.
448. The skeleton of the black bass. By R. W. Shufeldt. Bulletin, vol. xix, 1899, p. 311-320, 8 text fig., pl. 44. 1900.
449. The chemical composition of the subdermal connective tissue of the ocean sun fish. By Erik H. Green. Bulletin, vol. xix, 1899, p. 321-324. 1900.
452. A method of recording egg development, for use of fish-culturists. By Clausius Wallich. Report for 1900, p. 185-194, pl. 1. 1900.
453. Statistics of the fisheries of the Middle Atlantic States [for 1897]. By Division of Statistics, C. H. Townsend in charge. Report for 1900, p. 195-310. 1900.
454. Statistics of the fisheries of the New England States [for 1898]. By Division of Statistics, C. H. Townsend in charge. Report for 1900, p. 311-386. 1900.
455. The hydroids of the Woods Hole region. By C. C. Nutting. Bulletin, vol. xix, 1899, p. 325-386, 105 text fig. 1901.
456. Description of 15 new species of fishes from the Hawaiian Islands. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 387-404, 16 text fig. 1901.
457. Parasites of fishes of the Woods Hole region. By Edwin Linton. Bulletin, vol. xix, 1899, p. 405-492, pl. i-xxxiv. 1901.
458. The Mollusca of Porto Rico. By W. H. Dall and C. T. Simpson. Bulletin, vol. xx, 1900, pt. 1, p. 351-524, pl. 53-58. 1901.
459. The Brachyura and Macrura of Porto Rico. By Mary J. Rathbun. Bulletin, vol. xx, 1900, pt. 2, p. 1-127 + *129-137, 26 text fig., pl. 1 and 2. 1901.
460. The Anomuran collections made by the *Fish Hawk* expedition to Porto Rico. By J. E. Benedict. Bulletin, vol. xx, 1900, pt. 2, p. 129-148, pl. 3-6. 1901.
461. The Stomatopoda of Porto Rico. By R. P. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 149-160, 13 text fig. 1901.
462. Report on Porto Rican Isopoda. By H. F. Moore. Bulletin, vol. xx, 1900, pt. 2, p. 161-176, pl. 7-11. 1901.
463. The Cirripedia collected near Porto Rico by the *Fish Hawk* expedition in 1898-99. By M. A. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 177-180. 1901.
464. The polychaetous annelids of Porto Rico. By A. L. Treadwell. Bulletin, vol. xx, 1900, pt. 2, p. 181-210, 78 text fig. 1901.
465. Descriptions of two new leeches from Porto Rico. By J. Percy Moore. Bulletin, vol. xx, 1900, pt. 2, p. 211-222, pl. 12-13. 1901.
466. The nemerteans of Porto Rico. By Wesley R. Coe. Bulletin, vol. xx, 1900, pt. 2, p. 223-229. 1901.
467. The echinoderms of Porto Rico. By H. L. Clark. Bulletin, vol. xx, 1900, pt. 2, p. 231-263, pl. 14-17. 1901.
468. The Alcyonaria of Porto Rico. By C. W. Hargitt and C. G. Rogers. Bulletin, vol. xx, 1900, pt. 2, p. 265-287, pl. i-iv. 1901.
469. The stony corals of Porto Rican waters. By T. Wayland Vaughan. Bulletin, vol. xx, 1900, pt. 2, p. 289-320, pl. i-xxxviii. 1901.
470. Actinaria from the vicinity of Porto Rico. By J. E. Duerden. Bulletin, vol. xx, 1900, pt. 2, p. 321-374, pl. A and i-xii. 1901.
471. The sponges collected in Porto Rico in 1899 by the U. S. Fish Commission steamer *Fish Hawk*. By H. V. Wilson. Bulletin, vol. xx, 1900, pt. 2, p. 375-411. 1901.
472. Dredging and other records of the U. S. Fish Commission steamer *Albatross*, with bibliography relative to the work of the vessel. Compiled by C. H. Townsend. Report for 1900, p. 387-562, pl. i-vii. 1901.
474. Biological notes, No. 2, from biological laboratory at Woods Hole. Bulletin, vol. xxi, 1901, p. 27-33. 1901.
475. Description of a new oceanic fish found off southern New England. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 35-36, 1 text fig. 1901.
476. The egg and development of the conger eel. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 37-44, 15 text fig. 1901.
477. Investigations into the history of the young squeteague. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 45-51, 2 text fig. 1901.

BUREAU OF FISHERIES—Continued.

Doc. No

478. A new isopod parasitic on the hermit crab. By Millet T. Thompson. Bulletin, vol. xxi, 1901, p. 53-56, pl. 9-10. 1901.
479. The plants of western Lake Erie, with observations on their distribution. By A. J. Pieters. Bulletin, vol. xxi, 1901, p. 57-79, 11 text fig., pl. 11-20. 1901.
480. The leptocephalus of the American eel and other American leptocephali. By C. H. Eigenmann and C. H. Kennedy. Bulletin, vol. xxi, 1901, p. 81-92, 14 text fig. 1901.
483. Notes on the fishes and mollusks of Lake Chautauqua, New York. By B. W. Evermann and E. L. Goldsborough. Report for 1901, p. 169-175. 1902.
484. The foraminifera of Porto Rico. By James M. Flint. Bulletin, vol. xx, pt. 2, 1900, p. 415-416. 1901.
485. Description of a new species of blenny from Japan. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 93-94, 1 text fig. 1902.
486. List of species of fishes known to occur in the Great Lakes or their connecting waters. By Barton Warren Evermann. Bulletin, vol. xxi, 1901, p. 95-96. 1902.
491. Notes on the tagging of four thousand adult cod at Woods Hole, Mass. By Hugh M. Smith. Report for 1901, p. 193-208. 1902.
492. Notes on the silversides of the genus *Menidia* of the east coast of the United States, with descriptions of two new subspecies. By W. C. Kendall. Report for 1901, p. 241-267, 6 text fig. 1902.
493. Note on the Scotch methods of smoking haddocks. By Hugh M. Smith. Report for 1901, p. 269-271. 1902.
494. Notes on the fishes of Lake Ontario. An annotated list of the fishes known to occur in Lake Champlain and its tributary waters. An annotated list of the fishes known to occur in the St. Lawrence River. By B. W. Evermann and W. C. Kendall. Report for 1901, p. 209-240. 1902.
495. A report on fishes collected in Mexico and Central America, with notes and descriptions of five new species. By B. W. Evermann and E. L. Goldsborough. Bulletin, vol. xxi, 1901, p. 137-159, 8 text fig. 1902.
496. The organic constituents of the scales of fish. By E. H. Green and R. W. Tower. Bulletin, vol. xxi, 1901, p. 97-102. 1902.
497. The reactions of copepods to various stimuli and the bearing of this on daily depth migrations. By G. H. Parker. Bulletin, vol. xxi, 1901, p. 103-123. 1902.
498. The gas in the swim-bladder of fishes. Biliary calculi in the squeteague. By R. W. Tower. Bulletin, vol. xxi, 1901, p. 125-135, pl. xxi. 1902.
499. Description of a new species of shad (*Alosa ohlensis*), with notes on other food-fishes of the Ohio River. By Barton Warren Evermann. Report for 1901, p. 273-288. 1902.
500. The reproductive period in the lobster. By Francis H. Herrick. Bulletin, vol. xxi, 1901, p. 161-166, 5 text fig. 1902.
501. Notes on five food-fishes of Lake Buhl, Luzon, Philippine Islands. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 167-171, pl. 22. 1902.
502. Marine protozoa from Woods Hole. By Gary N. Calkins. Bulletin, vol. xxi, 1901, p. 413-468, 69 text fig. 1902.
503. Notes on a species of barnacle (*Dichelaspis*) parasitic on the gills of edible crabs. By Robert E. Coker. Bulletin, vol. xxi, 1901, p. 399-412, 14 text fig. 1902.
505. Notes on the fisheries of the Pacific coast in 1899. By W. A. Wilcox. Report for 1901, p. 501-574, pl. 28-29. 1902.
506. Statistics of the fisheries of the Great Lakes [for 1899]. Report for 1901, p. 575-657. 1902.
507. Statistics of the fisheries of the Mississippi River and tributaries [for 1899]. Report for 1901, p. 659-740. 1902.
508. The Pan-American Exposition. Report of representative of the U. S. Fish Commission. By W. de C. Ravenel. Report for 1901, p. 289-351, pl. 6-20. 1902.

BUREAU OF FISHERIES—Continued.

Doc. No.

509. Notes on the boats, apparatus, and fishing methods employed by the natives of the South Sea Islands, and the results of fishing trials by the *Albatross*. By A. B. Alexander. Report for 1901, p. 741-829, 36 text fig., pl. 30-37. 1902.
511. Observations on the herring fisheries of England, Scotland, and Holland. By Hugh M. Smith. Bulletin, vol. xxii, 1902, p. 1-16, 1 text fig., pl. 1-2. 1903.
512. Japanese oyster culture. By Bashford Dean. Bulletin, vol. xxii, 1902, p. 17-37, 27 text fig., pl. 3-7. 1903.
514. Hearing and allied senses in fishes. By G. H. Parker. Bulletin, vol. xxii, 1902, p. 45-64, pl. 9. 1903.
515. Natural history of the quinnat salmon. A report on investigations in the Sacramento River, 1896-1901. By Cloudsley Rutter. Bulletin, vol. xxii, 1902, p. 65-141, 7 text fig., pl. 10-18. 1903.
516. Notes on fishes from streams and lakes of northeastern California not tributary to the Sacramento Basin. By Cloudsley Rutter. Bulletin, vol. xxii, 1902, p. 145-148, 2 text fig. 1903.
518. The destruction of trout fry by hydra. By A. E. Beardsley. Bulletin, vol. xxii, p. 157-160. 1903.
519. Artificial propagation of the salmon of the Pacific coast. Manual of Fish Culture, p. 1-15, pl. 3-10. 1900.
520. Artificial propagation of the lake trout, grayling, and whitefish. Manual of Fish Culture, p. 91-120, pl. 30-39. 1900.
521. Artificial propagation of the shad and pike perch. Manual of Fish Culture, p. 121-145 and 165-179, 5 text fig., pl. 40-46 and 51-52. 1900.
522. Artificial propagation of marine species of fishes. Manual of Fish Culture, p. 195-233, pl. 54-63. 1904.
523. Descriptions of new genera and species of fishes from the Hawaiian Islands. By D. S. Jordan and B. W. Evermann. Bulletin, vol. xxii, 1902, p. 161-208. 1903.
524. Report of the Commissioner of Fisheries for the fiscal year ending June 30, 1902. Report for 1902, p. 1-160, 2 text fig., pl. 1-5. 1903.
525. Descriptions of a new genus and two new species of fishes from the Hawaiian Islands. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. xxii, 1902, p. 209-210. 1903.
526. The freshwater fishes of western Cuba. By Carl H. Eigenmann. Bulletin, vol. xxii, 1902, p. 211-236, 17 text fig., pl. 19-21. 1903.
527. The organ of sense of taste in fishes. By C. Judson Herrick. Bulletin, vol. xxii, 1902, p. 237-272, 3 text fig. 1903.
529. The plankton algæ of Lake Erie, with special reference to the Chlorophyceæ. By Julia W. Snow. Bulletin, vol. xxii, 1902, p. 369-394, pl. i-iv. 1903.
530. Description of a new species of darter from Tippecanoe Lake. By William J. Moenkhaus. Bulletin, vol. xxii, 1902, p. 395-398. 1903.
531. Notes on some freshwater fishes from Maine. By W. C. Kendall. Bulletin, vol. xxii, 1902, p. 353-368, 5 text fig. 1903.
533. A more complete description of *Bacterium truttæ*. By M. C. Marsh. Bulletin, vol. xxii, 1902, p. 411-416, pl. i-ii. 1903.
534. Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. By Oliver P. Jenkins. Bulletin, vol. xxii, 1902, p. 417-511, 50 text fig., pl. i-iv. 1903.
539. The fisheries and fish trade of Porto Rico. By W. A. Wilcox. Report for 1902, p. 367-395. 1903.
540. Statistics of the fisheries of the Middle Atlantic States [for 1901]. Report for 1902, p. 433-540. 1903.
541. Records of dredging and other collecting stations of the U. S. Fish Commission steamer *Albatross* in 1901 and 1902. Report for 1902, p. 397-432. 1903.
542. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer *Albatross*. By Harriet Richardson. Bulletin, vol. xxiii, 1903, pt. iii, p. 47-54. 1903.

BUREAU OF FISHERIES—Continued.

Dec. No.

544. Notes on a porpoise of the genus *Prodelphinus* from the Hawaiian Islands. By Frederick W. True. Bulletin, vol. xxiii, 1903, pt. 3, p. 41-45, pl. 1-2. 1903.
546. A catalogue of the shore fishes collected by the steamer *Albatross* about the Hawaiian Islands in 1902. By John Otterbein Snyder. Bulletin, vol. xxii, 1902, p. 513-538, 52 text fig., pl. 1-13. 1904.
547. Notes on fishes collected in the Tortugas Archipelago. By David Starr Jordan. Bulletin, vol. xxii, 1902, p. 539-544, pl. 1-2. 1904.
548. Report of the Commissioner of Fisheries for the fiscal year ending June 30, 1903. Report for 1903, p. 1-138. 1904.
549. Records of the dredging and other collecting and hydrographic stations of the U. S. Fisheries steamer *Albatross* in 1903. By Franklin Swift, compiled by Harry C. Fassett. Report for 1903, p. 123-134. 1904.
550. The echinoderms of the Woods Hole region. By Hubert Lyman Clark. Bulletin, vol. xxii, 1902, p. 545-576, pl. 1-14. 1904.
551. List of fishes dredged by the steamer *Albatross* off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridae. By David Starr Jordan and Edwin Chapin Starks. Bulletin, vol. xxii, 1902, p. 577-630, pl. 1-vii. 1904.
555. The commercial fisheries of the interior lakes and rivers of New York and Vermont. By John N. Cobb. Report for 1903, p. 225-246. 1904.
557. A revision of *Malaclemmys*, a genus of turtles. By William Perry Hay. Bulletin, vol. xxiv, 1904, p. 1-20, pl. 1-xii. 1904.
558. The medusae of the Woods Hole region. By Charles W. Hargitt. Bulletin, vol. xxiv, 1904, p. 21-79, 30 text fig., pl. 1-vii. 1904.
559. The osteology and immediate relations of the tilefish, *Lopholatilus chamaeleonticeps*. By Frederick A. Lucas. Bulletin, vol. xxiv, 1904, p. 81-86, 3 text fig. 1904.
560. The blood vascular system of the tilefish, *Lopholatilus chamaeleonticeps*. By C. F. Silvester. Bulletin, vol. xxiv, 1904, p. 87-114, 15 text fig., pl. 1. 1904.
561. The fish parasites of the genus *Argulus* found in the Woods Hole region. By Charles B. Wilson. Bulletin for 1904, p. 115-131, 12 text fig. 1904.
562. The seaweed industries of Japan. The utilization of seaweeds in the United States. By Hugh M. Smith. Bulletin, vol. xxiv, 1904, p. 133-181, 31 text fig., pl. 1-v. 1905.
563. The function of the lateral-line organs in fishes. By G. H. Parker. Bulletin, vol. xxiv, 1904, p. 183-207. 1905.
564. Isopods from the Alaska salmon investigation. By Harriet Richardson. Bulletin, vol. xxiv, 1904, p. 209-221, 10 text fig. 1905.
565. List of fishes collected in Boulder County, Colo., with description of a new species of *Leuciscus*. By Chancey Juday. Bulletin, vol. xxiv, 1904, p. 223-227, 1 text fig. 1905.
566. Biological relation of aquatic plants to the substratum. By Raymond H. Pond. Report for 1903, p. 483-526, 6 text fig. 1905.
567. State ichthyology of Massachusetts. By Theodore Gill. Report for 1904, p. 163-188. 1905.
568. The fish fauna of the Tortugas Archipelago. By David Starr Jordan and Joseph C. Thompson. Bulletin, vol. xxiv, 1904, p. 229-256, 6 text fig. 1905.
569. Distribution of sewage in the waters of Narragansett Bay, with especial reference to the contamination of the oyster beds. By Caleb Allen Fuller. Report for 1904, p. 189-238, 2 text cuts. 1905.
570. Statistics of the fisheries of the South Atlantic States, 1902. Report for 1903, p. 343-410. 1905.
571. Statistics of the fisheries of the Gulf States, 1902. Report for 1903, p. 411-481. 1905.
572. New starfishes from deep water off California and Alaska. By Walter K. Fisher. Bulletin, vol. xxiv, 1904, p. 291-320. 1905.
574. Notes on the fishes of the streams flowing into San Francisco Bay, California. Critical notes on *Mylocheilus lateralis* and *Leuciscus caurinus*. By John O. Snyder. Report for 1904, p. 327-342, pl. 1. 1905.

BUREAU OF FISHERIES—Continued.

Doc. No.

575. Statistics of the fisheries of the New England States, 1902. Report for 1904, p. 245-325. 1905.
576. Note regarding the promotion of fishery trade between the United States and Japan. By Hugh M. Smith. Report for 1904, p. 239-243. 1905.
577. Commercial fisheries of the Hawaiian Islands, 1901. By John N. Cobb. Bulletin, vol. xxiii, 1903, pt. ii, p. 716-765, pl. 102-106. 1905.
578. The gas disease in fishes. By M. C. Marsh and F. P. Gorham. Report for 1904, p. 343-376, pl. i-iii. 1905.
579. A revision of the cave fishes of North America. By Ulysses O. Cox. Report for 1904, p. 377-393, 11 text fig., pl. i-vi. 1905.
580. The life history of the blue crab (*Callinectes sapidus*). By W. P. Hay. Report for 1904, p. 395-413, 2 text fig., pl. i-iv. 1905.
582. The deep-sea fishes of the Hawaiian Islands. By Charles Henry Gilbert. Bulletin, vol. xxiii, 1903, pt. ii, p. 575-713, pl. 66-101. 1905.
583. Parasites of fishes of Beaufort, N. C. By Edwin Linton. Bulletin, vol. xxiv, 1904, p. 321-428, pl. i-xxxiv. 1905.
584. Physiological studies of the chinook salmon. By Charles Wilson Greene. Bulletin, vol. xxiv, 1904, p. 429-456, 6 text fig. 1905.
585. The Amphipoda of southern New England. By S. J. Holmes. Bulletin, vol. xxiv, 1904, p. 457-529, 65 text fig., pl. i-xiii. 1905.
586. Hydroids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By C. C. Nutting. Bulletin, vol. xxiii, 1903, pt. iii, p. 931-959, pl. i-xiii. 1905.
587. The Brachyura and Macrura of the Hawaiian Islands. By Mary J. Rathbun. Bulletin, vol. xxiii, 1903, pt. iii, p. 827-930, 79 text fig., pl. i-xxiv. 1905.
588. Schizopods of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. E. Ortmann. Bulletin, vol. xxiii, 1903, pt. iii, p. 961-973. 1905.
589. Nemertean of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By Wesley R. Coe. Bulletin, vol. xxiii, 1903, pt. iii, p. 975-986, 7 text fig., pl. i. 1905.
590. The commercial fisheries of the Hawaiian Islands in 1903. By John N. Cobb. Report for 1904, p. 433-511. 1905.
591. Notes on the food and parasites of some fresh-water fishes from the lakes at Madison, Wis. By W. S. Marshall and N. C. Gilbert. Report for 1904, p. 513-522. 1905.
593. Statistics of the fisheries of the Great Lakes in 1903. Report for 1904, p. 643-731. 1905.
594. Report of the Commissioner of Fisheries for the year ending June 30, 1905. 46 p. 1905.
596. The physiological effects upon fishes of changes in the density and salinity of water. By F. B. Sumner. Bulletin, vol. xxv, 1905, p. 53-108, 2 text fig. 1906.
597. Opisthobranchiate Mollusca from Monterey Bay, California, and vicinity. By F. M. MacFarland. Bulletin, vol. xxv, 1905, p. 109-161, pl. xviii-xxix. 1906.
598. Hirudinea and Oligochaeta collected in the Great Lakes region. By J. P. Moore. Bulletin, vol. xxv, 1905, p. 153-171, 6 text fig., pl. xxxii. 1906.
599. The starfishes of the Hawaiian Islands. By W. K. Fisher. Bulletin, vol. xxv, 1903, pt. iii, p. 987-1130, 2 text fig., pl. i-xlix. 1906.
600. Medusæ of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. G. Mayer. Bulletin, vol. xxiii, 1903, pt. iii, p. 1131-1143, pl. i-iii. 1906.
601. Polychætous annelids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. I. Treadwell. Bulletin, vol. xxiii, 1903, pt. iii, p. 1145-1181, 81 text fig. 1906.
604. Dredging and hydrographic records of the U. S. Fisheries steamer *Albatross* for 1904 and 1905. 78 p. 1906.
605. The fishes of Samoa. Description of the species found in the archipelago, with a provisional list of the fishes of Oceania. Bulletin, vol. xxv, 1905, p. 173-455, 111 text fig., pl. xxxiii-lviii. 1906.

BUREAU OF FISHERIES—Continued.

Doc. No.

609. Statistics of the fisheries of the Middle Atlantic States for 1904. 122 p. 1907.
611. A cestode parasite in the flesh of the butterfish. By Edwin Linton. Bulletin, vol. xxvi, 1906, p. 111-131, pl. i-ii. 1907.
614. List of publications of Bureau of Fisheries available for distribution, Feb. 19, 1911. 17 p. 1911.
619. The effects of some industrial wastes on fishes. By M. C. Marsh. Reprint from Water-Supply and Irrigation Paper No. 192, U. S. Geological Survey. 1907. (Special edition obtained by Bureau of Fisheries for distribution upon request.)
622. Unutilized fishes and their relation to the fishing industries. By Irving A. Field. 50 p. 1907.
623. Notes on fishes of Hawaii, with descriptions of new species. By David S. Jordan and John O. Snyder. Bulletin, vol. xxvi, 1906, p. 205-218, 4 text fig., pl. xii-xiii. 1907.
624. The fishes of Alaska. By Barton W. Evermann and E. L. Goldsborough. Bulletin, vol. xxvi, 1906, p. 219-360, 144 text fig., pl. xiv-xlii. 1907.
625. The physiology of the digestive tract of elasmobranchs. By M. X. Sullivan. Bulletin, vol. xxvii, 1907, p. 1-27, pl. i. 1907.
628. Culture of the Montana grayling. By James A. Henshall. 7 p. 1907.
631. Fishes of West Virginia. By E. L. Goldsborough and H. Walton Clark. Bulletin, vol. xxvii, 1907, p. 29-39, 1 text fig. 1908.
633. The fishes of the Connecticut Lakes and neighboring waters, with notes on the plankton environment. By W. C. Kendall and E. L. Goldsborough. 77 p., pl. i-xii, text fig. 1-5, 2 charts. 1908.
634. Devils Lake, North Dakota: A study of physical and biological conditions, with a view to the acclimatization of fish. By Thomas E. B. Pope. 22 p. pl. i-iii, 1 map. 1908.
635. The photography of aquatic animals in their natural environment. By Jacob Reighard. Bulletin, vol. xxvii, 1907, p. 41-68, pl. ii-v, 9 text fig. 1908.
636. Relationships of the fish fauna of the lakes of southeastern Oregon. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 69-102, 4 text fig., 1 map. 1908.
637. The fishes of the Sacramento-San Joaquin basin, with a study of their distribution and variation. By Cloudsley Rutter. Bulletin, vol. xxvii, 1907, p. 103-152, 4 text fig., pl. vi. 1908.
638. The fishes of the coastal streams of Oregon and northern California. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 153-189, text fig. 1-5, 1 map. 1908.
639. The natural history, organization, and late development of the Terebratulidæ, or shipworms. By Charles P. Sigerfoos. Bulletin, vol. xxvii, 1907, p. 191-231, pl. vii-xxi. 1908.
640. Fishes from islands of the Philippine Archipelago. By David Starr Jordan and Robert E. Richardson. Bulletin, vol. xxvii, 1907, p. 233-287, text fig. 1-12. 1908.
642. Report of the Commissioner of Fisheries for the year ended June 30, 1908. 23 p. 1908.
643. Aquatic plants in pond culture. By John W. Titcomb. 31 p., 2 pl., 32 text fig. 1908.
644. Distribution of fish and fish eggs during the fiscal year 1908. 93 p. 1908.
645. The fisheries of Alaska in 1908. By M. C. Marsh and J. N. Cobb. 78 p. 1909.
646. International regulations of the fisheries on the high seas. By O. T. Olsen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 77-90. 1910.
647. International regulations of the fisheries on the high seas. By Charles E. Fryer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 91-102. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

648. International regulations of the fisheries on the high seas. By Charles Hugh Stevenson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 103-180, 8 text fig. 1910.
649. Work of the International Fisheries Commission. By David Starr Jordan. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 181-186. 1910.
650. Some reasons for failure of fish-protective legislation, and some suggested remedies. By Oregon Milton Dennis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 187-192. 1910.
651. National aspects of angling and the protection of game fishes. By H. Wheeler Perce. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 193-198. 1910.
652. Sport fishing in California and Florida. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 199-207, pl. i-vi. 1910.
653. Lobsters and the lobster problem in Massachusetts. By George W. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 209-217. 1910.
654. A method of lobster culture. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 219-240, 7 text fig., pl. vii-xi. 1910.
655. Sea mussels and dogfish as food. By Irving A. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 241-257. 1910.
656. On the wholesomeness of oysters as food. By Henry C. Rowe. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 259-267. 1910.
657. Effects of menhaden fishing upon the supply of menhaden and of the fishes that prey upon them. By Walter E. Hathaway. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 269-278. 1910.
658. Effects of the menhaden and mackerel fisheries upon the fish supply. By W. C. Kendall. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 279-293. 1910.
659. An improved and practical method of packing fish for transportation. By A. Sölling. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 295-301. 1910.
660. A process for preserving the pearl-oyster fisheries and for increasing the value of the yield of pearls. By John I. Solomon. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 303-313, 3 text fig. 1910.
661. Fur seals and the seal fisheries. By Charles H. Townsend. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 315-322. 1910.
662. Economic conditions of the fisheries in Italy. By Guido Rossati. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 323-332. 1910.
663. The fisheries and the guano industry of Peru. By Robert E. Coker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 333-365, pl. xii-xvii. 1910.
664. The fisheries of China. By W. W. Yen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 367-373. 1910.
665. The fisheries of Japan considered from a geographical standpoint. By T. Kitahara. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 375-379. 1910.
667. Commercial sponges and the sponge fisheries. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 399-511, 4 text fig., pl. xxviii-lxvi. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

668. The abuse of the scaphander in the sponge fisheries. By Ch. Flegel. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 513-543. 1910.
669. A practical method of sponge culture. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 545-585, 7 text fig., pl. LXVII-LXXVI. 1910.
670. Sponge culture. By Jules Cotte. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 587-614. 1910.
671. Experiments in the artificial propagation of fresh-water mussels. By George Lefevre and W. C. Curtis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 615-628. 1910.
672. A plan for promoting the whitefish production of the Great Lakes.^a By S. W. Downing. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 627-633. 1910.
673. A plan for promoting the whitefish production of the Great Lakes.^a By Frank N. Clark. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 635-642. 1910.
674. A plan for promoting the whitefish production of the Great Lakes.^a By Paul Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 643-684, 5 text fig. 1910.
675. Fish-cultural practices in the Bureau of Fisheries. By John W. Titcomb. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 697-757, 13 text fig., pl. LXXVII-LXXXIX. 1910.
676. A new principle of aquiculture and transportation of live fishes. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 759-780, 1 text fig., pl. xc-c. 1910.
677. A method of cultivating rainbow trout and other Salmonidæ. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 781-787, 3 text fig. 1910.
678. Possible expansion of shad-hatchery work. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 789-793. 1910.
679. The comparative value of foods for rainbow trout and other salmonoids. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 795-798. 1910.
680. Apparatus and methods used at the marine fish hatchery at Flödevig, Norway. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 799-809, 8 text fig., pl. ci. 1910.
681. The utility of sea-fish hatching. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 811-816. 1910.
682. Propagation and protection of the Rhine salmon. By P. P. C. Hoek. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 817-829, 2 text fig. 1910.
683. Fishes in their relation to the mosquito problem. By William P. Seal. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 831-838. 1910.
684. Foods for young salmonoid fishes. By Charles G. Atkins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 839-851. 1910.

^a Documents 672, 673, and 674, with discussion occupying p. 685-695, are issued under one cover.

BUREAU OF FISHERIES—Continued.

Doc. No.

685. Fresh-water shrimp, a natural fish food. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 853-858. 1910.
686. The cultivation of the turbot. By R. Anthony. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 859-870, 2 text fig., pl. cii-ciii. 1910.
687. The treatment of fish-cultural waters for the removal of algæ. By M. C. Marsh and R. K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 871-890, 2 text fig. 1910.
688. Notes on the dissolved content of water in its effect upon fishes. By M. C. Marsh. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 891-906. 1910.
689. Causes of diseases in young salmonoids. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 907-916. 1910.
690. Radical prevention of *Costia necatrix* in salmonoid fry. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 917-928. 1910.
691. Treatment of fungus on fishes in captivity. By L. B. Spencer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 929-932. 1910.
692. Methods of combating fungus on fishes in captivity. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 933-936. 1910.
693. A new method of combating fungus on fishes in captivity. By Paul Zirzow. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 937-940. 1910.
694. Experience in abating disease among brook trout. By Albert Rosenberg. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 941-945. 1910.
695. American fishes in Italy. By G. Besana. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 947-954. 1910.
696. Acclimatization of American fishes in Argentina. By E. A. Tullan. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 955-965. 1910.
697. Introduction of American fishes into New Zealand. By L. F. Ayson. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 967-975. 1910.
698. Naturalization of American fishes in Austrian waters. By Franz von Pirko. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 977-982. 1910.
699. Causes of degeneration of American trouts in Austria. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 983-989. 1910.
700. New and improved devices for fish culturists. By Alfred E. Fuller. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 991-1000, pl. civ-cvi. 1910.
701. A device for counting young fish. By Robert K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1001-1004, 1 text fig. 1910.
702. A method of transporting live fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1005-1007. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

703. A method of measuring fish eggs. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1009-1014, 2 text fig. 1910.
704. An improvement in hatching and rearing boxes; with notes on continuous feeding of the fry of Salmonidæ. By G. E. Simms. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1015-1023, 3 text fig. 1910.
705. Devices for the use of fish hatcheries and aquaria. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1025-1035, 6 text fig. 1910.
706. New methods of transporting eggs and fish. By W. S. Kincaid. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1037-1039. 1910.
707. Fishways. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1041-1067, 21 text fig. 1910.
708. A plea for observation of habits of fishes and against undue generalization. By Theodore Gill. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1059-1069. 1910.
709. The habits and life history of the toadfish (*Opsanus tau*). By E. W. Gudger. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1071-1110, 1 text fig., pl. cvii-cxiii. 1910.
710. Methods of studying the habits of fishes and recording their life histories; with an account of the breeding habits of the horned dace. By Jacob Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1111-1136, 5 text fig., pl. cxiv-cxx. 1910.
711. A method of studying the life history of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1137-1141. 1910.
712. Effects of changes in the density of water upon the blood of fishes. By G. G. Scott. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1143-1150. 1910.
713. Internal parasites of the Sebago salmon. By Henry B. Ward. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1151-1194, pl. cxxi. 1910.
714. Notes on the flesh parasites of marine food fishes. By Edwin Linton. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1195-1209. 1910.
715. Structure and functions of the ear of the squeteague. By G. H. Parker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1211-1224, pl. cxxii. 1910.
716. An intensive study of the fauna and flora of a restricted area of sea bottom. By Francis B. Sumner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1225-1263, 27 text fig., 2 charts. 1910.
717. Development of sponges from tissue cells outside of the body of the parent. By H. V. Wilson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1265-1271. 1910.
718. Gases dissolved in the waters of Wisconsin lakes. By E. A. Birge. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1273-1294, 20 text fig. 1910.
719. Volumetric studies of the food and feeding of oysters. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1295-1308, 6 text fig., pl. cxxv. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

720. A plan for an educational exhibit of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1309-1314. 1910.
721. A plan for an educational exhibit of fishes. By Roy W. Miner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1315-1346, 9 text fig., pl. cxxvi-cxli. 1910.
722. Outline for an educational exhibit of fishes. By Frederic A. Lucas. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1341-1351. 1910.
723. A method of preparing fish for museum and exhibition purposes. By Dwight Franklin. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1353-1355, pl. cxlii. 1910.
724. New methods of preparing fishes for museum exhibit. By J. D. Figgins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1357-1363. 1910.
725. The U. S. Bureau of Fisheries: Its establishment, functions, organization, resources, operations, and achievements. By Hugh M. Smith. Second edition. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, 1908, p. 1365-1411, pl. cxliii-clvi. 1910.
726. Organization and sessional business of the Fourth International Fishery Congress, Washington, U. S. A., 1908. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, p. 1-76. 1910.
727. Report of the Commissioner of Fisheries for the fiscal year ended June 30. 1909. 38 p. 1910.
728. Distribution of fish and fish eggs during the fiscal year 1909. 103 p. 1910.
729. Condition and extent of the oyster beds of James River, Virginia. By H. F. Moore. 83 p., 2 charts. 1910.
730. The fisheries of Alaska in 1909. By M. C. Marsh and John N. Cobb. 58 p. 1910.
731. Oyster-culture experiments and investigations in Louisiana. By H. F. Moore. 54 p., 8 pl. 1910.
732. Laws and regulations relative to fur-seal fishing. 7 p. 1910.
733. American catfishes: Habits, culture, and commercial importance. By W. C. Kendall. 39 p., 10 pl. 1910.
734. Report of the Commissioner of Fisheries, 1910. 40 p. 1910.
735. The fur-seal fisheries of Alaska in 1909. By Walter I. Leimbkey. 53 p. 1910.
736. Marine isopods collected in the Philippines by the U. S. fisheries steamer *Albatross* in 1907-8. By Harriet Richardson. 44 p., 39 text fig. 1910.
737. A review of the salmonoid fishes of the Great Lakes, with notes on the whitefishes of other regions. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. xxix, 1909, p. 1-41, pl. i-vii, 23 text fig. 1911.
738. Influence of the eyes, ears, and other allied sense organs on the movements of the dogfish, *Mustelus canis* (Mitchill). By George H. Parker. Bulletin, vol. xxix, 1909, p. 43-57. 1910.
739. Barnacles of Japan and Bering Sea. By Henry A. Pilsbry. Bulletin, vol. xxix, 1909, p. 59-84, 11 text fig., pl. viii-xvii. 1911.
740. Distribution of fish and fish eggs during the fiscal year 1910. 112 p. 1911.
741. Dredging and hydrographic records of the U. S. fisheries steamer *Albatross* during the Philippine expedition, 1907-1910. 97 p. 1910.
742. The food value of sea mussels. By Irving A. Field. Bulletin, vol. xxix, 1909, p. 85-128, 2 text fig., pl. xviii-xxv. 1911.
743. The migration of salmon in the Columbia River. By Charles W. Greene. Bulletin, vol. xxix, 1909, p. 129-148, pl. xxvi-xxvii. 1911.
744. Anatomy and physiology of the wing-shell *Atrina rigida*. By Benjamin H. Grave. Bulletin, vol. xxix, 1909, p. 409-438, 15 text fig., pl. xlviii-l. 1911.

BUREAU OF FISHERIES—Continued.

Doc. No.

745. Condition and extent of the natural oyster beds of Delaware. By H. F. Moore. 29 p., 1 chart. 1911.
746. The fisheries of Alaska in 1910. 72 p. 1911.
747. Development of sponges from dissociated tissue cells. By H. V. Wilson. Bulletin, vol. xxx, 1910. (In press.)

BUREAU OF IMMIGRATION AND NATURALIZATION.

- Annual report of the Commissioner-General of Immigration, 1910. 248 pp., 2 charts. 1910. [There are also available limited supplies of the annual reports of the Commissioner-General for each of the years 1892, 1897, 1899, 1900, 1901, 1902, and 1903.]
- Annual report of the Chief of the Division of Naturalization to the Commissioner-General of Immigration, 1910. 34 pp. 1910. [Printed also in report of the Commissioner-General.]
- Annual report of the Chief of the Division of Information to the Commissioner-General of Immigration, 1910. 15 pp. 1910. [Printed also in report of the Commissioner-General.]
- Immigration laws and regulations of July 1, 1907. 13th edition. May 4, 1911. 97 pp. 1911.
- Treaty, laws, and regulations governing the admission of Chinese. Edition Jan. 10, 1911. 61 pp. 1911.
- Naturalization laws and regulations, Mar. 15, 1911. 29 pp. 1911.

The Bureau also issues monthly, for the use of the press and individuals directly concerned, a statement giving comparative statistics of immigration and the inward and outward passenger movements.

BUREAU OF LABOR.

ANNUAL REPORTS.

- First annual report of the Commissioner of Labor, 1886: Industrial depressions. 496 pp. 1886.
- Third annual report of the Commissioner of Labor, 1887: Strikes and lockouts, Jan. 1, 1881, to Dec. 31, 1886. 1172 pp. 1888.
- Fourth annual report of the Commissioner of Labor, 1888: Working women in large cities. 631 pp. 1889.
- Fifth annual report of the Commissioner of Labor, 1889: Railroad labor. 888 pp. 1890.
- Seventh annual report of the Commissioner of Labor, 1891: Cost of production: The textiles and glass (2 vols.). 2048 pp. 1892.
- Eighth annual report of the Commissioner of Labor, 1892: Industrial education. 707 pp. 1893.
- Fifteenth annual report of the Commissioner of Labor, 1900: A compilation of wages in commercial countries from official sources (2 vols.). 1842 pp. 1900.
- Nineteenth annual report of the Commissioner of Labor, 1904: Wages and hours of labor. 976 pp. 1905.
- Twentieth annual report of the Commissioner of Labor, 1905: Convict labor. 794 pp. 1906.
- Twenty-first annual report of the Commissioner of Labor, 1906: Strikes and lockouts, Jan. 1, 1881, to Dec. 31, 1905. 979 pp. 1907.
- Twenty-third annual report of the Commissioner of Labor, 1908: Workmen's insurance and benefit funds in the United States. 810 pp. 1909.
- Twenty-fourth annual report of the Commissioner of Labor, 1909: Workmen's insurance and compensation systems in Europe. Vol. I. 1493 pp. 1911. [Vol. II in press.]

BUREAU OF LABOR—Continued.

SPECIAL REPORTS.

- Index of all reports issued by bureaus of labor statistics in the United States prior to Mar. 1, 1902. 287 pp. 1902.
- Third report of the Commissioner of Labor on Hawaii, 1905. 333 pp. 1906.
- Investigation of Western Union and Postal Telegraph-Cable companies. 554 pp. 1909.
- Investigation of telephone companies. 340 pp. 1910.
- Report on strike at Bethlehem Steel Works, South Bethlehem, Pa. 136 pp. 1910.
- Laws relating to compensation for industrial accidents in foreign countries. [Part of 24th annual report.] 277 pp. 1909.
- Fourth report of the Commissioner of Labor on Hawaii, 1910. (In press.)

BULLETINS.

- No. 11. Workers at gainful occupations at censuses of 1870, 1880, and 1890; Public baths in Europe. 156 pp., 8 pls. July, 1897.
- No. 29. Trusts and industrial combinations; The Yukon and Nome gold regions; Labor day. 252 pp. July, 1900.
- No. 30. Trend of wages from 1891 to 1900; Statistics of cities; Foreign labor laws: Various European countries. 204 pp. September, 1900.
- No. 33. Foreign labor laws: Australasia and Canada; The British conspiracy and protection of property act and its operation. 204 pp. March, 1901.
- No. 34. Labor conditions in Porto Rico; Social economics at the Paris Exposition; The workmen's compensation act of Holland. 186 pp. May, 1901.
- No. 35. Cooperative communities in the United States; The Negro landholder of Georgia. 250 pp., 15 text figs. July, 1901.
- No. 36. Statistics of cities; Statistics of Honolulu, Hawaii. 210 pp. September, 1901.
- No. 38. Labor conditions in Mexico; The Negroes of Cinclare Central Factory and Calumet Plantation, La. 194 pp., 4 pls. January, 1902.
- No. 39. Course of wholesale prices, 1890 to 1901. 314 pp. March, 1902.
- No. 40. Present condition of the hand-working and domestic industries of Germany; Workmen's compensation acts of foreign countries. 154 pp. 1 tab. inset. May, 1902.
- No. 41. Labor conditions in Cuba; Beef prices. 218 pp. July, 1902.
- No. 44. Factory sanitation and labor protection. 202 pp. January, 1903.
- No. 45. Course of wholesale prices, 1890 to 1902. 234 pp., 4 text figs. March, 1903.
- No. 46. Report of anthracite coal strike commission. 247 pp. May, 1903.
- No. 47. Report of the Commissioner of Labor on Hawaii. 298 pp. July, 1903.
- No. 48. Farm colonies of the Salvation Army; The Negroes of Xenia, Ohio: A social study. 154 pp. September, 1903.
- No. 51. Course of wholesale prices from 1890-1903; Union movement among coal-mine workers; Agreements between employers and employees. 266 pp., 4 text figs. March, 1904.
- No. 52. Child labor in the United States. 218 pp. May, 1904.
- No. 53. Wages and cost of living. 266 pp. July, 1904.
- No. 54. The working of the United States Bureau of Labor; Bureaus of statistics of labor in the United States; Bureaus of statistics of labor in foreign countries; The value and influence of labor statistics; Strikes and lockouts in the United States, 1881 to 1900; Wages in the United States and Europe, 1890 to 1903; Cost of living and retail prices in the United States, 1890 to 1903; Wholesale prices in the United States, 1890 to 1903; Housing of the working people in the United States by employers; Public baths in the United States; Trade and technical education in the United States; Hand and machine labor in the United States; Labor legislation in the United States; Labor conditions in Hawaii. 522 pp., 194 pls., 21 text figs. September, 1904.

BUREAU OF LABOR—BULLETINS—Continued.

- No. 57. Course of wholesale prices, 1890 to 1904; Street railway employment in the United States; State cooperative accident insurance fund of Maryland. 332 pp., 4 text figs. March, 1905.
- No. 58. Labor conditions in the Philippines; Labor conditions in Java; The new Russian workmen's compensation act. 299 pp. May, 1905.
- No. 59. Wages and hours of labor in manufacturing industries, 1890 to 1904; Retail prices of food, 1890 to 1904; Laws relating to child labor in European countries. 385 pp., 2 pl. July, 1905.
- No. 63. Course of wholesale prices, 1890 to 1905. 255 pp., 4 text figs. March, 1906.
- No. 64. Conditions of living among the poor; Benefit features of British trade unions. 317 pp. May, 1906.
- No. 69. Wholesale prices, 1890 to 1906. 233 pp., 4 text figs. March, 1907.
- No. 75. Wholesale prices, 1890 to 1907; Industrial hygiene. 374 pp., 4 text figs. March, 1908.
- No. 76. Canadian Industrial Disputes Investigation Act of 1907; What is done for the unemployed in European countries. 380 pp. May, 1908.
- No. 80. Woman and child wage-earners in Great Britain. 194 pp. January, 1909.
- No. 81. Wholesale prices, 1890 to 1908. 275 pp., 4 text figs. March, 1909.
- No. 82. Mortality from consumption in occupations exposing to municipal and general organic dust. 215 pp. May, 1909.
- No. 83. Women's trade-union movement in Great Britain; Cost of living of the working classes in the principal industrial towns of France. 181 pp. July, 1909.
- No. 84. Accidents to railroad employees in New Jersey, 1888 to 1907; The Minnesota iron ranges. 272 pp. September, 1909.
- No. 85. Review of labor legislation of 1908 and 1909; Laws of various States relating to labor, enacted since Jan. 1, 1908. 410 pp. November, 1909.
- No. 86. Canadian Industrial Disputes Investigation Act of 1907; Phosphorus poisoning in the match industry in the United States; List of industrial poisons. 375 pp. January, 1910.
- No. 87. Wholesale prices, 1890 to March, 1910; Wages and hours of labor of union carpenters in the United States and in English-speaking foreign countries. 319 pp., 5 text figs. March, 1910.
- No. 88. Cost of living of families of moderate income in Germany in 1907-8; Trend of wages in Germany, 1898 to 1907; Wages and hours of labor in German woodworking industries in 1906; Wages and hours of labor in Austria, 1906 and 1907. 230 pp. May, 1910.
- No. 89. Child-labor legislation in Europe. 436 pp. July, 1910.
- No. 90. Fatal accidents in coal mining; Recent action relating to employers' liability and workmen's compensation; Essential features of a compensation law—Chicago conference of November, 1910; Summary of foreign workmen's compensation acts; Cost of employers' liability and workmen's compensation insurance. 430 pp. September, 1910.
- No. 91. Working hours of wage-earning women in selected industries in Chicago; Labor laws declared unconstitutional; Old-age and invalidity pension laws of Germany, France, and Australia; Review of labor legislation of 1910; Laws of various States relating to labor enacted since January 1, 1910. 293 pp. November, 1910.
- No. 92. Industrial accidents and loss of earning power—German experience in 1897 and 1907; Workmen's compensation insurance; Laws and bills, 1911; International Association for Labor Legislation; Report of Illinois commission on occupational diseases. January, 1911. (In press.)
- No. 93. Wholesale prices, 1890 to 1910; Cost of living in American towns [summary of British report]; Hours of labor of factory employees in Austria. March, 1911. (In press.)

BUREAU OF LIGHTHOUSES.

- List of lights and fog signals, Atlantic and Gulf coasts of the United States. Corrected to Jan. 31, 1911. 207 pp. 1911.
- List of lights and fog signals of the United States and the Dominion of Canada on the northern lakes and rivers, and of the unlighted aids to navigation of the United States on those waters. Corrected to July 15, 1910. 180 pp., 1 map. 1910.
- Same, on the Pacific coast of North America, and of the United States on the Hawaiian, Midway, Guam, and Samoan Islands. Corrected to July 31, 1909. 58 pp., 10 pls., 1 map. 1909.
- List of lights, buoys, and daymarks in the First lighthouse district, embracing the seacoast, bays, harbors, and rivers from the northeastern boundary of the United States to Hampton Harbor, N. H. Corrected to May 1, 1909. 146 pp. 1909.
- Same, Second lighthouse district, embracing the coasts, harbors, and rivers, from Hampton Harbor, N. H., to Elisha Ledge, off Warren Point, R. I., including Nantucket and Vineyard Sounds, Buzzards Bay, and tributaries. Corrected to Nov. 1, 1909. 120 pp. 1909.
- Atlantic coast of the United States. List of buoys and other aids to navigation, Narragansett Bay to Cape May, including New York Harbor. Third lighthouse district. Corrected to Mar. 31, 1911. (In press.)
- Same, Delaware Bay and River, including Philadelphia Harbor. Fourth lighthouse district. Corrected to Mar. 15, 1911. 30 pp. 1911.
- Same, Cape Henlopen to Cape Lookout, including Chesapeake Bay and North Carolina Sounds. Fifth lighthouse district. Corrected to Apr. 1, 1911. (In press.)
- List of buoys and other aids to navigation, Florida reefs and Gulf coast to Cedar Keys. Seventh lighthouse district. Corrected to May 15, 1911. (In press.)
- Same, Eighth lighthouse district, extending from, but does not include, Perdido Entrance, Fla., to the Rio Grande, Tex. Corrected to Dec. 1, 1908. 65 pp. 1909.
- Same, [Ninth lighthouse district], embracing the coasts, harbors, and waters of the island of Porto Rico and adjacent islands of the United States. Corrected to Jan. 1, 1909. 25 pp. 1909.
- Same, [Nineteenth lighthouse district], embracing the coasts, harbors, and waters of the Hawaiian and Midway Islands. Corrected to Jan. 1, 1909. 21 pp. 1909.
- List of lights, buoys, and daymarks on the upper Mississippi River and tributaries. Thirteenth lighthouse district. Corrected to Nov. 15, 1910. 198 pp. 1910.
- Same, Ohio, Tennessee, Kanawha, and Monongahela rivers. Fourteenth lighthouse district. Corrected to Dec. 1, 1910. 119 pp. 1911.
- List of aids to navigation in the Fifteenth lighthouse district (Mississippi River from New Orleans, La., to Cairo, Ill., and Red River). Corrected to Aug. 15, 1910. 65 pp. 1910.
- List of buoys and other aids to navigation, California, Oregon, Washington, and Alaska. Sixteenth, seventeenth, and eighteenth lighthouse districts. Corrected to May 15, 1911. (In press.)
- Annual report of the operations of the Light-House Board for 1910. 81 pp. 1910. [There are also on hand a limited supply of each of the annual reports since 1895, except those for 1904 and 1905.]
- Report on use of acetylene gas by the Canadian government as an illuminant for aids to navigation. By Capt. Albert Ross, U. S. N., member of the Light-House Board. 26 pp. 1907.
- Report upon fog-signal experiments. By Maj. William R. Livermore, Corps of Engineers, U. S. A. 376 pp., 64 pls. 1894.
- Aberrations of audibility of fog-signals. By Arnold B. Johnson, chief clerk of the Light-House Board. 16 pp., 1 pl. 1885.
- History of the application of electric light to lighting the coasts of France. By Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 pp., 25 pls. 1883.

BUREAU OF LIGHTHOUSES—Continued.

Report upon the exhibit of the Light-House Board at the World's Columbian Exposition held at Chicago, 1893. By A. B. Johnson, chief clerk, Light-House Board. 42 pp., illus. 1894.

Regulations for lighting bridges over navigable rivers, 1907. 19 pp., 7 diag. 1907.

Whitewash and cement-wash formulas. 1 p. 1906.

The Bureau also, in collaboration with the Coast and Geodetic Survey, publishes weekly, for the benefit of mariners and others interested in navigation, a Notice to Mariners. Requests to be placed on the mailing list to receive the publication regularly should be addressed to the Division of Publications.

BUREAU OF MANUFACTURES.

The publications of the Bureau of Manufactures are made up chiefly of reports from United States consular officers and special agents in foreign countries, and in addition to those listed below the Bureau publishes the Daily Consular and Trade Reports, which is designed to benefit manufacturers, exporters, etc., in promoting trade. The number of copies that may be distributed is limited by law; therefore preference is given to applications received from those for whose special benefit it is issued. Applications should be addressed to the Bureau.

SPECIAL AGENTS SERIES.

6. Report on trade conditions in Japan and Korea. 48 pp. 1906.
7. Report on trade conditions in China. 125 pp., 17 text figs. 1906.
12. Report on trade conditions in Asiatic Turkey. 45 pp. 1907.
17. Report on trade conditions in Australasia. 48 pp. 1908.
18. Cotton textile trade in Turkish Empire, Greece, and Italy. 125 pp. 1908.
19. Report on trade conditions in Ecuador. 39 pp. 1908.
20. Swiss embroidery and lace industry. 43 pp. 1908.
21. Report on trade conditions on the west coast of South America. 82 pp. 1908.
26. Machine-tool trade in Germany, France, Switzerland, Italy, and the United Kingdom. 246 pp. 1909.
27. German iron and steel industry. 73 pp. 1909.
28. American agricultural implements in Europe, Asia, and Africa. 88 pp. 1909.
30. Flour and wheat trade in European countries and the Levant. 168 pp. 1909.
32. Machine-tool trade in Belgium. 93 pp. 1909.
34. Machine-tool trade in Austria-Hungary, Denmark, Russia, and Netherlands. 187 pp. 1910. [Also supplement.]
35. Flour trade in Latin America—Part 1. Porto Rico. 30 pp. 1910.
36. Cotton goods in Latin America—Part 2. Brazil, Colombia, and Venezuela. 96 pp. 1910.
37. Shoe and leather trade in Argentina, Chile, Peru, and Uruguay. 72 pp. 1910.
38. Industrial conditions in Europe—Part 1. England and France. 56 pp. 1910.
40. Cotton goods in Latin America—Part 3. Argentina, Uruguay, and Paraguay. 52 pp., 1 text fig. 1910.
42. Industrial conditions in Europe—Part 2. Austria-Hungary. 48 pp. 1910.
43. Trade development in Argentina. 94 pp., 8 text figs. 1911.
44. Cotton goods in Latin America—Part 4. Chile, Bolivia, Peru, Ecuador, Jamaica, and Porto Rico. 118 pp., 8 text figs. 1911.
45. Trade development in Latin America. 56 pp. 1911.

BUREAU OF MANUFACTURES—Continued.

SPECIAL CONSULAR REPORTS.

35. Warehouses in foreign countries for storage of merchandise in transit or in bond. 206 pp. 1905.
37. Machine-made lace industry in Europe. 39 pp., 22 pls., 4 text figs. 1905.
40. Motor machines—Part 2. 144 pp. 1908.
41. Part 2—Zinc industry in Mexico. 14 pp. 1909.
Part 3—Commercial courts in Europe. 29 pp. 1909.
Part 4—Police and work dogs in Europe. 16 pp., 7 text figs. 1909.
Part 5—Soya bean and products. 35 pp. 1909.
Part 6—Manufacture of air-nitrate fertilizers. 16 pp., 2 text figs. 1909.
42. Part 1—Municipal art commissions and street lighting in European cities. 30 pp. 1910.
Part 2—Municipal taxation in European countries. 88 pp. 1910.
Part 3—Municipal markets and slaughterhouses in Europe. 117 pp., 9 text figs. 1910.
43. Part 1—Coal trade in Latin America. 32 pp. 1910.
Part 2—Agricultural machinery in foreign countries. 38 pp., 3 text figs. 1910.
Part 3—Camphor industry in foreign countries. 15 pp., 2 text figs. 1910.
44. Cotton-goods trade in China. 32 pp. 1911.

ANNUAL SERIES OF CONSULAR REPORTS, 1907.

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| 3. Panama. 15 pp. | 30. Turkey in Asia. 52 pp. |
| 4. Canada. 94 pp. | 31. Servia and Roumania. 30 pp. |
| 6. Italy. 53 pp. | 32. Peru, Ecuador, and Paraguay. 81 pp. |
| 8. Germany. 108 pp. | 33. Japan and Korea. 91 pp. |
| 16. United Kingdom. 112 pp. | 34. Siam and Dutch East Indies. 26 pp. |
| 17. Netherlands. 18 pp. | 35. Central America. 47 pp. |
| 18. Switzerland. 22 pp. | 36. West Indies. 42 pp. |
| 20. Russia. 37 pp. | 37. Malta and Gibraltar. 15 pp. |
| 21. Brazil. 27 pp. | 38. Australasia. 38 pp. |
| 22. Colombia, Venezuela, and British and Dutch Guiana. 39 pp. | 39. Northern and Central Africa. 55 pp. |
| 24. Argentina. 24 pp. | 40. South and East Africa. 74 pp. |
| 25. Belgium. 43 pp. | |
| 28. British East Indies. 57 pp. | |
| 29. China. 92 pp. | |

MISCELLANEOUS PUBLICATIONS.

- Annual report of the Chief of the Bureau of Manufactures, 1910. 23 pp. 1910.
[There are also available a limited number of the annual reports for each year since 1905.]
- Commercial relations of the United States with foreign countries, calendar year 1909. 1060 pp. 1911. [Annual reports of consuls on commerce and industries of the various countries of the world. There are also available a few copies of the reports for several prior years.]
- Export trade exploitation. [Misc. series No. 2a.] 2d ed., with additions. Mar. 10, 1911. 30 pp. 1911.
- Packing for export. [Misc. series No. 4.] 38 pp., 10 pls., 11 text figs. 1909.
- Same. [Misc. series No. 5.] (In press.)

TARIFF SERIES.

- No. 2. Tariffs on agricultural and animal products. 120 pp. 1907.
- No. 3. Tariffs on machinery, machine tools, and vehicles. 75 pp. 1907.
- No. 3A. Supplement to Tariff Series, No. 3. 34 pp. 1910.
- No. 6A. Commercial agreement between the United States and France. 4 pp. 1908.

BUREAU OF MANUFACTURES—TARIFF SERIES—Continued.

- No. 6B. Proposed new customs tariff of France (2d rev. ed.). 50 pp. 1909.
 No. 6c. Commercial convention between France and Canada. 85 pp. 1909.
 No. 6d. Abrogation of commercial agreement between the United States and France. 4 pp. 1909.
 No. 6E. Proposed new customs tariff of France [supplement to Tariff Series No. 6B]. 19 pp. 1910.
 No. 7. Customs tariff of the German Customs Union. 125 pp. 1908.
 No. 7A. Supplement to German customs tariff. 4 pp. October, 1909.
 No. 8. Customs tariff of New Zealand. 36 pp. 1908.
 No. 9. Customs tariff of Montserrat. 12 pp. 1908.
 No. 10. Customs tariff of Virgin Islands. 8 pp. 1908.
 No. 12. Customs tariff of Saint Lucia. 8 pp. 1908.
 No. 13. Customs tariff of Turks and Caicos Islands. 4 pp. 1908.
 No. 14. Customs tariff of Bahamas, British West Indies. 12 pp. 1908.
 No. 14A. Supplement to customs tariff of Bahamas. 1 p. 1909.
 No. 15. Customs tariff of Italy. 92 pp. 1908.
 No. 15A. Supplement to customs tariff of Italy. 6 pp. 1909.
 No. 15B. Supplement to customs tariff of Italy. 4 pp. 1911.
 No. 16. Preferential tariff of Brazil. 4 pp. 1908.
 No. 17. Customs tariff of Australia. 76 pp. 1908.
 No. 17A. Supplement to customs tariff of Australia. 2 pp. 1909.
 No. 17B. Supplement to customs tariff of Australia. 4 pp. 1910.
 No. 17C. Supplement to customs tariff of Australia. 7 pp. 1911.
 No. 18. Customs tariff of the United Kingdom. 12 pp. 1908.
 No. 19. Commercial travelers in foreign countries. 71 pp. 1908.
 No. 20. Export tariffs of foreign countries. 48 pp. 1909.
 No. 22. Proposed new customs tariff of Argentina. 4 pp. 1909.
 No. 23. Customs tariff of Mexico. 78 pp. 1910.
 No. 24. Consular regulations of foreign countries. 75 pp. 1910.
 No. 25. Customs tariff of France. 132 pp. 1910.
 No. 26. Tariff relations of Canada. System now in force and proposed concessions to the United States. March, 1911. 39 pp. 1911.

The Bureau issues also from time to time compilations of foreign tariff notes from the Daily Consular and Trade Reports. Nos. 1 and 2 of the series, embodying extracts from the Daily from July 5, 1910, to February 8, 1911, are available for distribution.

BUREAU OF NAVIGATION.

- Annual report of the Commissioner of Navigation for 1910. 229 pp. 1910.
 [There are also available a few copies of the report for each year since 1894, with the exception of 1905 and 1909.]
 Seagoing vessels of the United States with official numbers and signal letters. Part VI of the 42d annual list of merchant vessels of the United States for the year ending June 30, 1910. 80 pp. 1910. [There are also available a limited number of copies of the list for 1908.]
 Rules and regulations relating to the anchorage of vessels in the port of New York. (Apr. 25, 1907.) 10 pp., 8 pls. 1907.
 Rules for the St. Marys River. Apr. 15, 1911. 14 pp. 1911.
 Rules and regulations relating to the anchorage and movement of vessels in harbors of Chicago. May 7, 1909. 6 pp., 1 pl. 1909.

BUREAU OF STANDARDS.

In addition to the tests and comparisons made by the Bureau of Standards, its work includes such researches as are involved in the establishment and maintenance of the various standards and units of measurement, the development of measuring instruments and

BUREAU OF STANDARDS—Continued.

methods of measurement, the determination of physical constants and the properties of materials. The results of these investigations are published in pamphlet form, and in the following pages is given a list of these papers. They cover a wide range of subjects in the field of physical measurements and are issued for general distribution to the scientific, technical, and industrial interests concerned with the subjects treated. The papers will be sent upon request and may be designated by the numbers which precede the titles in the list. It is assumed that individuals generally are interested in a particular class of work; hence this method of distribution has been adopted in order that each may secure the particular information desired.

These papers are also bound from time to time in the form of a bulletin which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential; also to a limited number of persons especially concerned with the work of the Bureau as a whole. Arrangements are now being made, however, for the sale of copies of the Bulletin to private individuals, of which due announcement will be made.

The regulations under which tests and comparisons are made by the Bureau and other general information concerning its work are issued in the form of circulars, which are sent upon request.

TECHNICAL PAPERS.

1. Recomparison of the United States prototype meter. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 5-19. 1905.
2. A study of the silver voltameter. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 21-37. 1905.
3. The so-called international electrical units. By Frank A. Wolff. Bulletin, vol. 1, 1904-5, p. 39-76. 1905.
4. The spectra of mixed gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 77-81. 1905.
5. On secondary spectra and the conditions under which they may be produced. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 83-94. 1905.
6. Some new rectifying effects in conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 95-100. 1905.
7. On fibers resembling fused quartz in their elastic properties. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 101-107. 1905.
8. On the temperature of the arc. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 109-124. 1905.
9. The absolute measurement of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 125-152. 1905.
10. The absolute measurement of capacity. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 153-187. 1905.
11. Optical pyrometry. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 189-254. 1905.
12. On the theory of the Matthews and the Russell-Léonard photometers for the measurement of mean spherical and mean hemispherical intensities. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 255-274. 1905.
13. The testing of clinical thermometers. By C. W. Waldner and L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 275-289. 1905.
14. Measurement of inductance by Anderson's method, using alternating currents and a vibration galvanometer. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 291-336. 1905.
15. Use of serpentine in standards of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 337-348. 1905.
16. The silver coulometer. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 349-364. 1905.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

17. History of the standard weights and measures of the United States. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 365-381. 1905.
18. Wattmeter methods of measuring power expended upon condensers and circuits of low power factor. By Edward B. Rosa. Bulletin, vol. 1, 1904-5, p. 383-397. 1905.
19. The relative intensities of metal and gas spectra from electrically conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 399-416. 1905.
20. The use of white walls in a photometric laboratory. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 417-420. 1905.
21. Influence of wave form on the rate of integrating induction wattmeters. By E. B. Rosa, M. G. Lloyd, and C. E. Reid. Bulletin, vol. 1, 1904-5, p. 421-434. 1905.
22. Detector for very small alternating currents and electrical waves. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 435-438. 1905.
23. The positive charges carried by the canal rays. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 439-441. 1905.
24. Radiation from platinum at high temperatures. By G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 443-447. 1905.
25. A five-thousand volt generator set. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 449-451. 1905.
26. Talbot's law as applied to the rotating sector disk. By Edward P. Hyde. Bulletin, vol. 2, 1906, p. 1-32. 1906.
27. A new determination of the electromotive force of Weston and Clark standard cells by an absolute electro-dynamometer. By K. E. Guthe. Bulletin, vol. 2, 1906, p. 33-70. 1906.
28. The Gray absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 71-86. 1906.
29. Construction and calculation of absolute standards of inductance. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 87-143. 1906.
30. An efficiency meter for electric incandescent lamps. By E. P. Hyde and H. B. Brooks. Bulletin, vol. 2, 1906, p. 145-160. 1906.
31. Calculation of the self-inductance of single-layer coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 161-187. 1906.
32. Heat treatment of high-temperature mercurial thermometers. By Hobert C. Dickinson. Bulletin, vol. 2, 1906, p. 189-223. 1906.
33. A new potentiometer for the measurement of electromotive force and current. By H. B. Brooks. Bulletin, vol. 2, 1906, p. 225-238. 1906.
34. Spectrum lines as light sources in polariscopic measurements. By Frederick Bates. Bulletin, vol. 2, 1906, p. 239-248. 1906.
35. Polarimetric sensibility and accuracy. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 249-260. 1906.
36. On the platinum-point electrolytic detector for electrical waves. By L. W. Austin. Bulletin, vol. 2, 1906, p. 261-274. 1906.
37. The influence of frequency upon the self-inductance of coils. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 275-296. 1906.
38. Experiments on the Heusler magnetic alloys. By K. E. Guthe and L. W. Austin. Bulletin, vol. 2, 1906, p. 297-316. 1906.
39. A pocket spectrophotometer. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 317-318. 1906.
40. Preliminary measurements on temperature and selective radiation of incandescent lamps. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 2, 1906, p. 319-329. 1906.
41. Revision of the formulae of Weinstein and Stefan for the mutual inductance of coaxial coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 331-357. 1906.
42. The mutual inductance of two circular coaxial coils of rectangular section. By E. B. Rosa and Louis Cohen. Bulletin, vol. 2, 1906, p. 359-414. 1906.
43. On the determination of the mean horizontal intensity of incandescent lamps by the rotating lamp method. By E. P. Hyde and F. E. Cady. Bulletin, vol. 2, 1906, p. 415-437. 1906.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

44. Purity and intensity of monochromatic light sources. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 439-456. 1906.
45. Radiometric investigations of infrared absorption and reflection spectra. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 457-478. 1906.
46. A vacuum radiomicrometer. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 479-483. 1906.
47. On the geometrical mean distances of rectangular areas and the calculation of self-inductance. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 1-41. 1907.
48. The compensated two-circuit electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 43-58. 1907.
49. The complete form of Fechner's law. By P. G. Nutting. Bulletin, vol. 3, 1907, p. 59-64. 1907.
50. A comparison of the unit of luminous intensity of the United States with those of Germany, England, and France. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 65-80. 1907.
51. Geometrical theory of radiating surfaces with discussion of light tubes. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 81-104. 1907.
52. The influence of basic lead acetate on the optical rotation of sucrose in water solution. By F. J. Bates and J. C. Blake. Bulletin, vol. 3, 1907, p. 105-113. 1907.
53. On the colorimetric determination of iron with special reference to chemical reagents. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 115-156. 1907.
54. On sulphocyanic acid. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 157-161. 1907.
55. Radiation from and melting points of palladium and platinum. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 3, 1907, p. 163-208. 1907.
56. The mutual inductance of a circle and a coaxial single-layer coil.—The Lorenz apparatus and the Ayrton-Jones absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 209-236. 1907.
57. On the establishment of the thermodynamic scale of temperature by means of the constant-pressure thermometer. By Edgar Buckingham. Bulletin, vol. 3, 1907, p. 237-293. 1907.
58. An exact formula for the mutual inductance of coaxial solenoids. By Louis Cohen. Bulletin, vol. 3, 1907, p. 295-303. 1907.
59. The mutual inductance of coaxial solenoids. By E. B. Rosa and Louis Cohen. Bulletin, vol. 3, 1907, p. 305-324. 1907.
60. The production of high-frequency oscillations from the electric arc. By L. W. Austin. Bulletin, vol. 3, 1907, p. 325-340. 1907.
61. An explanation of the short life of frosted lamps. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 341-344. 1907.
62. Melting points of the iron group elements by a new radiation method. By G. K. Burgess. Bulletin, vol. 3, 1907, p. 345-355. 1907.
63. On the determination of the mean horizontal intensity of incandescent lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 3, 1907, p. 357-369. 1907.
64. Simultaneous measurement of the capacity and power factor of condensers. By Frederick W. Grover. Bulletin, vol. 3, 1907, p. 371-431. 1907.
65. A new determination of the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 433-604. 1907.
66. A comparison of the various methods of determining the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 605-622. 1907.
67. Preliminary specifications for Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 3, 1907, p. 623-640. 1907.
68. Calorimetric resistance thermometers and the transition temperature of sodium sulphate. By H. C. Dickinson and E. F. Mueller. Bulletin, vol. 3, 1907, p. 641-661. 1907.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

69. On the standard scale of temperature in the interval 0 to 100° C. By C. W. Waldner and H. C. Dickinson. Bulletin, vol. 3, 1907, p. 663-728. 1907.
70. Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 1-80. 1907.
71. The electrode equilibrium of the standard cell. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 81-89. 1907.
72. A comparative study of plain and frosted lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 4, 1907-8, p. 91-120. 1907.
73. The variation of resistances with atmospheric humidity. By E. B. Rosa and H. D. Babcock. Bulletin, vol. 4, 1907-8, p. 121-140. 1907.
74. The self-inductance of a toroidal coil of rectangular section. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 141-148. 1907.
75. On the self-inductance of circles. By E. B. Rosa and Louis Cohen. Bulletin, vol. 4, 1907-8, p. 149-150. 1907.
76. The influence of frequency on the resistance and inductance of solenoidal coils. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 161-178. 1907.
77. The atomic weight of hydrogen. By W. A. Noyes. Bulletin, vol. 4, 1907-8, p. 179-204. 1908.
78. The best methods of demagnetizing iron in magnetic testing. By G. W. Burrows. Bulletin, vol. 4, 1907-8, p. 205-274. 1908.
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80. The self and mutual inductance of linear conductors. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 301-344. 1908.
81. The atomic weight of chlorine. By W. A. Noyes and H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 345-364. 1908.
82. The preparation of chloroplatinic acid by electrolysis of platinum black. By H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 365-367. 1908.
83. The self-inductance of a coil of any length wound with any number of layers of wire. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 369-381. 1908.
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86. A quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 4, 1907-8, p. 461-466. 1908.
87. Apparatus for determination of the form of a wave of magnetic flux. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 4, 1907-8, p. 467-476. 1908.
88. Effect of wave form upon the iron losses in transformers. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 477-510. 1908.
89. The luminous properties of electrically conducting helium gas. By P. G. Nutting. Bulletin, vol. 4, 1907-8, p. 511-523. 1908.
90. Function of a periodic variable given by the steady reading of an instrument; with a note on the use of the capillary electrometer with alternating voltages. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 525-532. 1908.
91. Selective radiation from the Nernst glower. By W. W. Coblenz. Bulletin, vol. 4, 1907-8, p. 533-551. 1908.
92. The testing of glass volumetric apparatus. By N. S. Osborne and B. H. Veazey. Bulletin, vol. 4, 1907-8, p. 553-601. 1908.
93. Formulae and tables for the calculation of mutual and self inductance. By Edward B. Rosa and Louis Cohen. Bulletin, vol. 5, 1908-9, p. 1-132. 1908.
94. Some contact rectifiers of electric currents. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 133-147. 1908.
95. A method for producing feebly damped high-frequency electrical oscillations for laboratory measurements. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 149-152. 1908.

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96. On the advantages of a high spark frequency in radio-telegraphy. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 153-157. 1908.
97. Selective radiation from various solids, I. By W. W. Coblenz. Bulletin, vol. 5, 1908-9, p. 159-191. 1908.
98. Remarks on the quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 5, 1908-9, p. 193-198. 1908.
99. Methods of obtaining cooling curves. By George K. Burgess. Bulletin, vol. 5, 1908-9, p. 199-225. 1908.
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102. The principles involved in the selection and definition of the fundamental electrical units to be proposed for international adoption. By F. A. Wolff. Bulletin, vol. 5, 1908-9, p. 243-260. 1908.
103. The luminous equivalent of radiation. By P. G. Nutting. Bulletin, vol. 5, 1908-9, p. 261-308. 1909.
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116. The determination of the ratio of transformation and of the phase relations in transformers. By E. B. Rosa and M. G. Lloyd. Bulletin, vol. 6, 1909-10, p. 1-30. 1909.
117. The determination of the magnetic induction in straight bars. By Charles W. Burrows. Bulletin, vol. 6, 1909-10, pp. 31-88. 1909.
118. A method for constructing the natural scale of pure color. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 89-93. 1909.
119. An approximate experimental method for the analysis of EMF waves. By P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 95-106. 1909.
120. Note on the thermoelectric properties of tantalum and tungsten. By W. W. Coblenz. Bulletin, vol. 6, 1909-10, pp. 107-110. 1909.
121. The estimation of the temperature of copper by means of optical pyrometers. By George K. Burgess, assisted by J. J. Crowe. Bulletin, vol. 6, 1909-10, pp. 111-119. 1909.
122. The resolving power of objectives. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 121-124. 1909.
123. The theory of the Hampson liquefier. By Edgar Buckingham. Bulletin, vol. 6, 1909-10, pp. 125-147. 1909.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

124. **Platinum resistance thermometry at high temperatures.** By C. W. Waldner and G. K. Burgess. Bulletin, vol. 6, 1909-10, pp. 149-230. 1909.
125. **The daylight efficiency of artificial illuminants.** By H. E. Ives. Bulletin, vol. 6, 1909-10, pp. 231-246. 1909.
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129. **The regulation of potential transformers and the magnetizing current.** By M. G. Lloyd and P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 273-280. 1909.
130. **The determination of the constants of instrument transformers.** By P. G. Agnew and T. T. Fitch. Bulletin, vol. 6, 1909-10, pp. 281-299. 1909.
131. **Selective radiation from various solids, II.** By W. W. Coblenz. Bulletin, vol. 6, 1909-10, pp. 301-319. 1909.
132. **Luminous efficiency of the fire fly.** By Herbert E. Ives and W. W. Coblenz. Bulletin, vol. 6, 1909-10, pp. 321-336. 1909.
133. **Luminosity and temperature.** By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 337-346. 1909.
134. **A theoretical and experimental study of the vibration galvanometer.** By F. Wenner. Bulletin, vol. 6, 1909-10, pp. 347-378. 1909.
135. **Specific heat of some calcium chloride solutions between -35° C. and $+20^{\circ}$ C.** By H. C. Dickinson, E. F. Mueller, and E. B. George. Bulletin, vol. 6, 1909-10, pp. 379-408. 1910.
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137. **Mica condensers as standards of capacity.** By Harvey L. Curtis. Bulletin, vol. 6, 1909-10, pp. 431-488. 1911.
138. **The mutual induction of two parallel coaxial circles in terms of hypergeometrical series.** By Frederick W. Grover. Bulletin, vol. 6, 1909-10, pp. 489-502. 1911.
139. **A new method for the absolute measurement of electric quantity.** By Burton McCollum. Bulletin, vol. 6, 1909-10, pp. 503-526. 1911.
140. **The comparative sensitiveness of some common detectors of electrical oscillations.** By Louis W. Austin. Bulletin, vol. 6, 1909-10, pp. 527-542. 1911.
141. **Photometric units and nomenclature.** By E. B. Rosa. Bulletin, vol. 6, 1909-10, pp. 543-572. 1911.
142. **A modified method for the determination of relative wave-lengths [especially adapted to the establishment of secondary standards].** By Irwin G. Priest. Bulletin, vol. 6, 1909-10, pp. 573-606. 1911.
143. **Note on the temperature scale between 100° and 500° C.** By C. W. Waldner and G. K. Burgess. Bulletin, vol. 7, 1910-11, pp. 1-11. 1910-11.
144. **A new form of direct-reading candlepower scale and recording device for precision photometers.** By George W. Middlekauff. Bulletin, vol. 7, 1910-11, pp. 11-43.
145. **A device for measuring the torque of electrical instruments.** By P. G. Agnew. Bulletin, vol. 7, 1910-11, pp. 45-48.
146. **The intensities of some hydrogen, argon, and helium lines in relation to current and pressure.** By P. G. Nutting and Orin Tugman. Bulletin, vol. 7, 1910-11, pp. 49-70.
147. **The temperature coefficient of resistance of copper.** By J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 71-101.
148. **The electrical conductivity of commercial copper.** By F. A. Wolff and J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 103-126, 3 text figs.
149. **On the constancy of the sulphur boiling point.** By C. W. Waldner and C. K. Burgess. Bulletin, vol. 7, 1910-11, pp. 127-130.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

150. Note on oscillatory interference bands, and some practical applications. By George O. Squier and Albert C. Crehore. Bulletin, vol. 7, 1910-11, pp. 131-142, 7 text figs.
 151. The effect of preliminary heat treatment upon the drying of clays. By A. V. Bleining. Bulletin, vol. 7, 1910-11, pp. 143-195, 14 text figs.
 152. The reflecting power of various metals. By W. W. Coblenz. Bulletin, vol. 7, 1910-11, pp. 197-225, 9 text figs.
 153. The action of sunlight and air upon some lubricating oils. By C. E. Waters. Bulletin, vol. 7, 1910-11, pp. 227-234.
 154. The visibility of radiation—A recalculation of König's data. By P. G. Nutting. Bulletin, vol. 7, 1910-11, pp. 235-238.
 155. A photometric attachment for spectrosopes. By P. G. Nutting. Bulletin, vol. 7, 1910-11, pp. 239-241, 1 text fig.
 156. Selective radiation from various substances, III. By W. W. Coblenz. Bulletin, vol. 7, 1910-11, pp. 243-294, 14 text figs.
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 159. Some quantitative experiments in long-distance radiotelegraphy. By L. W. Austin. Bulletin, vol. 7, 1910-11. (In press.)
 160. The behavior of high-boiling mineral oils on heating in the air. By C. E. Waters. Bulletin, vol. 7, 1910-11. (In press.)
- Formulas and tables for the calculation of mutual and self-induction. [2d ed., revised and enlarged.] By Edward B. Rosa and Frederick W. Grover. (In press.)

BUREAU CIRCULARS.

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22. Standard specifications for transformers, oil-immersed, self-cooled, 60-cycle, 2,200 volts. May 15, 1910. 12 pp.
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26. Analyzed iron and manganese ores. Methods of analysis. 2d ed., rev., Jan. 15, 1911. 19 pp.
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STEAMBOAT-INSPECTION SERVICE.

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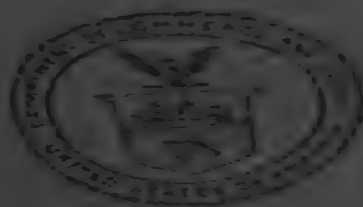
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Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey, and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce and Labor, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases, persons receiving publications regularly should give notice promptly of any changes of address, stating specifically the publication or publications received by them.

PUBLICATIONS AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

Annual report of the Secretary of Commerce and Labor, 1911. 115 pp. 1911. [There are also on hand a limited supply of the Secretary's report for each of the years 1903 to 1910, inclusive.]

Reports of the Department of Commerce and Labor [report of the Secretary and reports of bureaus consolidated], 1910. 692 pp., 2 charts. 1911. [There are also on hand a limited supply of the consolidated reports for each of the years 1904, 1905, and 1909.]

Annual report of the Chief of Appointment Division, 1911. 38 pp. 1911. [There are also available a few copies of the annual report for 1910.]

Annual report of the Chief of the Division of Publications, 1911. 28 pp. 1911. [There are also available a few copies of each of the annual reports from 1907 to 1910, inclusive.]

Fur seals of Alaska. Hearings before the Committee on Ways and Means, House of Representatives, 58th Congress, 2d session. (Mar. 9 and 10, 1904.) 76 pp. 1904.

Report on the Alaskan fur-seal fisheries. (Aug. 31, 1906.) By Edwin W. Sims, Solicitor of the Department of Commerce and Labor. 59 pp. 1906.

Wreck of the steamer Valencia. Report to the President of the Federal commission of investigation. (Apr. 14, 1906.) 53 pp., 3 pls. 1906.

Report of the commission appointed by the President on September 16, 1903, to investigate the condition of the immigration station at Ellis Island. 83 pp. 1904.

Departmental index; being an alphabetical arrangement of subjects in the statutes relating to the Executive Departments in general. 60 pp. 1905.

Proceedings of the first annual meeting of the National Council of Commerce, Washington, D. C., December 10, 1903. 28 pp. 1909.

Promotion of commerce in France. By Morris Jacobson, internal-commerce expert. 18 pp. 1908.

Views of the Department of Commerce and Labor on the bill to regulate corporations engaged in interstate and foreign commerce. Letter from the Secretary of Commerce and Labor to the chairman of the Committee on Interstate and Foreign Commerce, House of Representatives, concerning House bill 35, Sixty-second Congress, first session, 1911. 11 pp. 1911.

List of publications of the Department of Commerce and Labor available for distribution. 7th edition, January 15, 1912. 66 pp. 1912.

In addition to the foregoing, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

BUREAU OF THE CENSUS.

Requests for publications of the Bureau of the Census should be addressed to "The Director of the Census, Washington, D. C."

TENTH (1880) CENSUS REPORTS.

Agriculture. 1184 pp., 23 pls., 46 text figs. 1883.

Compendium, Part I. 1140 pp. 1885.

Same, Part II. 858 pp. 1883.

BUREAU OF THE CENSUS—TENTH CENSUS REPORTS—Continued.

Mortality and vital statistics, Part II. 962 pp., 20 pls., 114 text figs. 1886.

Population. 1052 pp., 72 pls., 8 text figs. 1883.

Precious metals. 556 pp., 2 pls., 1 text fig. 1885.

Social statistics of cities, Part II. 850 pp., 110 pls., 118 text figs. 1887.

Waterpower, Part II. 788 pp., 24 pls., 197 text figs. 1887.

ELEVENTH (1890) CENSUS REPORTS.

Agriculture and fisheries. 658 pp., 25 pls. 1895.

Agriculture by irrigation in the western part of the United States. 344 pp., 22 pls., 9 text figs. 1894.

Compendium, Part I—Population. 1098 pp., 9 pls., 2 figs. 1892.

Same, Part II—Miscellaneous statistics. 1078 pp. 1894.

Same, Part III—Miscellaneous statistics. 1158 pp. 1897.

Crime, pauperism, and benevolence, Part I—Analysis. 420 pp., 3 pls. (1 folder). 1896.

Same, Part II—General tables. 1048 pp., 4 pls. 1895.

Education. 150 pp. 1893.

Farms and homes, proprietorship and indebtedness. 658 pp., 89 pls. 1896.

Insane, feeble-minded, deaf and dumb, and blind. 766 pp., 60 pls. 1895.

Insurance business, Part I—Fire, marine and inland. 1138 pp. 1894.

Same, Part II—Life. 490 pp. 1895.

Manufactures, Part I—Totals for States and industries. 1008 pp. 1895.

Same, Part II—Statistics of cities. 872 pp. 1895.

Same, Part III—Selected industries. 734 pp. 1895.

Population, Part I. 1181 pp., 40 pls. 1895.

Same, Part II. 1002 pp. 1897.

Real estate mortgages. 956 pp., 58 pls. 1895.

Social statistics of cities. 146 pp., 33 pls. 1895.

Statistical atlas. 70 pp., 63 pls., 409 text figs. 1898.

Transportation business, Part I—By land. 876 pp., 2 pls. (folders). 1895.

Same, Part II—By water. 546 pp., 2 pls. (1 folder). 1894.

Vital and social statistics, Part I—Analysis and rate tables. 1078 pp., 30 pls., 93 text figs. 1896.

Same, Part II—Cities of 100,000 population and upward. 1192 pp., 34 pls., 64 text figs. 1896.

Same, Part III—Statistics of deaths. 1058 pp. 1894.

Same, Part IV—Statistics of deaths. 1034 pp. 1895.

Vital statistics of Boston and Philadelphia. 278 pp., 12 pls., 11 text figs. 1895.

Vital statistics of the District of Columbia and Baltimore. 250 pp., 12 pls., 9 text figs. 1893.

Vital statistics of New York and Brooklyn. 538 pp., 14 pls. (2 pocket and 12 folders), 14 text figs. 1894.

Wealth, debt, and taxation, Part II—Valuation and taxation. 662 pp., 7 pls. 1895.

TWELFTH (1900) CENSUS REPORTS.

Abstract. 470 pp. 1903.

Agriculture, Part I—Farms, live stock, and animal products. 1004 pp., 19 pls. 1902.

Same, Part II—Crops and irrigation. 880 pp., 28 pls., 35 text figs. 1902.

Manufactures, Part I—United States by industries. 1040 pp., 24 pls., 2 text figs. 1902.

Same, Part II—By States and Territories. 1112 pp. 1902.

Same, Part III—Special reports on selected industries. 1144 pp., 33 pls., 23 text figs. 1902.

BUREAU OF THE CENSUS—TWELFTH CENSUS REPORTS—Continued.

Manufactures, Part IV—Special reports on selected industries. 996 pp., 14 text figs. 1902.
Manufactures—Textiles (monograph). 258 pp. 1902.
Occupations. 764 pp., 12 pls. 1904.
Population, Part I. 1836 pp., 18 pls. 1901.
Statistical atlas. 92 pp., 207 pls. 1903.

TWELFTH (1900) CENSUS BULLETINS.**Agriculture:****States and Territories—**

Alabama—No. 155. 14 pp. 1902.
Arkansas—No. 153. 14 pp. 1902.
California—No. 164. 20 pp., 1 text fig. 1902.
Colorado—No. 177. 20 pp., 2 text figs. 1902.
Connecticut—No. 104. 12 pp. 1901.
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Kentucky—No. 220. 14 pp. 1902.
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Montana—No. 205. 18 pp., 1 text fig. 1902.
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Rhode Island—No. 108. 12 pp. 1901.
South Carolina—No. 232. 14 pp. 1902.
South Dakota—No. 234. 14 pp. 1902.
Tennessee—No. 226. 14 pp. 1902.

BUREAU OF THE CENSUS—TWELFTH CENSUS BULLETINS—Continued.**Agriculture—Continued.****States and Territories—Continued.**

- Texas—No. 229. 18 pp. 1902.
- United States—No. 237. 26 pp. 1902.
- Utah—No. 222. 14 pp., 1 text fig. 1902.
- Vermont—No. 162. 10 pp. 1902.
- Virginia—No. 223. 14 pp. 1902.
- Washington—No. 231. 16 pp., 1 text fig. 1902.
- West Virginia—No. 211. 10 pp. 1902.
- Wisconsin—No. 218. 14 pp. 1902.
- Wyoming—No. 235. 14 pp. 1902.

Special inquiries—

- Domestic animals in barns and inclosures, not on farms or ranges—
No. 17. 100 pp. 1909.

- Domestic animals in the United States—No. 156. 22 pp. 1902.

Geography:

- Area and population, a discussion of—No. 149. 24 pp., 4 text figs. 1902.

- Center of population and its median point—No. 62. 3 pp., 1 folder. 1901.

Manufactures:**States and Territories—**

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- Arkansas—No. 110. 12 pp. 1901.
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Manufactures—Continued.**States and Territories—Continued.**

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- Texas—No. 146. 28 pp. 1902.
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- Clay products—No. 194. 48 pp. 1902.
- Clothing—No. 233. 46 pp., 2 text figs. 1902.
- Collars and cuffs—No. 188. 10 pp. 1902.
- Combined textiles—No. 204. 16 pp. 1902.
- Cotton ginning, crop of 1899—No. 58. 16 pp. 1901.
- Same, crop of 1900—No. 98. 22 pp., 5 text figs. 1901.
- Same, crops of 1899, 1900, and 1901—No. 206. 38 pp., 14 text figs. 1902.
- Cotton manufactures—No. 215. 56 pp. 1902.
- Cottonseed products—No. 129. 10 pp., 1 text fig. 1902.
- Dyeing and finishing textiles—No. 202. 16 pp. 1902.
- Electrical apparatus and supplies—No. 245. 56 pp. 1902.
- Flax, hemp, and jute products—No. 168. 8 pp. 1902.
- Flouring and grist mill products—No. 199. 32 pp. 1902.
- Fruits and vegetables, fish, and oysters, canning and preserving—No. 209. 56 pp. 1902.
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- Industrial combinations—No. 122. 18 pp. 1901.
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- Lead, copper, and zinc smelting and refining—No. 124. 26 pp. 1902.
- Leather, tanned, curried, and finished—No. 195. 40 pp. 1902.
- The localization of industries—No. 244. 28 pp. 1902.
- Locomotives—No. 243. 20 pp., 9 text figs. 1902.
- Manufactured ice—No. 174. 26 pp., 3 text figs. 1902.
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- Pens and pencils—No. 212. 24 pp. 1902.

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- Wool manufactures, also hosiery and knit goods, shoddy, and fur hats—No. 236. 126 pp. 1902.

REPORTS OF THE PERMANENT CENSUS.

- A century of population growth: 1790–1900. 314 pp., 8 pls., 32 text figs. 1909.
- Benevolent institutions: 1904. 336 pp. 1905.
- The blind and the deaf: 1900. 264 pp., 3 pls., 51 text figs. 1906.
- Central electric light and power stations: 1902. 188 pp., 15 pls., 7 text figs. 1905.
- Same, 1907. 200 pp., 26 pls., 10 text figs. 1910.
- Electrical industries: 1902. 824 pp., 48 pls., 15 text figs. 1905.
- Express business in the United States: 1907. 28 pp. 1908.
- Fisheries of the United States: 1908. 324 pp. 1911.
- Insane and feeble-minded in hospitals and institutions: 1904. 238 pp. 1906.
- Manufactures: 1905—Part I. United States by industries. 1030 pp., 42 text figs. 1907.
- Marriage and divorce: 1867–1906—Part I. 550 pp., 14 text figs. 1909.
- Same, 1867–1906—Part II. General tables. 850 pp. 1908.
- Mines and quarries: 1902. 1154 pp., 49 pls., 25 text figs. 1905.
- Mortality: 1900 to 1904. 1004 pp. 1906.
- Same, 1905. 360 pp., 3 text figs. 1907.
- Same, 1906. 486 pp., 2 text figs. 1908.
- Same, 1907. 528 pp., 11 pls., 1 text fig. 1909.
- Same, 1908. 706 pp. 1910.
- Paupers in almshouses: 1904. 216 pp. 1906.
- Prisoners and juvenile delinquents in institutions. 296 pp. 1907.
- Religious bodies: 1906—Part I. Summary and general tables. 576 pp., 25 text figs. 1910.
- Same, 1906—Part II. Separate denominations: History, description, and statistics. 672 pp. 1910.
- Statistics of cities having a population of over 30,000: 1905. 372 pp. 1907.
- Same, 1906. 358 pp. 1908.
- Same, 1908. 353 pp. 1910.
- Street and electric railways: 1907. 576 pp. 30 pls., 10 text figs. 1910.
- Supplementary analysis and derivative tables. 1160 pp., 2 pls., 59 text figs. 1906.

BUREAU OF THE CENSUS—REPORTS OF THE PERMANENT CENSUS—Continued.

Telephones and telegraphs: 1902. 184 pp., 14 pls., 8 text figs. 1906.
 Telephones: 1907. 138 pp., 7 pls., 7 text figs. 1910.
 Transportation by water: 1906. 240 pp., 4 pls., 14 text figs. 1908.
 Wealth, debt, and taxation. 1246 pp., 16 text figs. 1907.
 Women at work, statistics of. 400 pp. 1907.

BULLETINS OF THE PERMANENT CENSUS.

Age statistics, a discussion of—13. 54 pp., 2 text figs. 1904.
 Child labor in the United States—69. 200 pp. 1907.
 Commercial valuation of railway operating property in the United States: 1904—21. 88 pp. 1905.
 Cotton ginned in the United States, quantity of (crops of 1890 to 1902, inclusive)—2. 46 pp., 14 text figs. 1908.
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 Same, 1909—107. 32 pp., 4 text figs. 1910.
 Same, 1910—111. 66 pp., 14 text figs. 1911.
 Cotton production and statistics of cottonseed products: 1905—40. 72 pp., 2 text figs. 1906.
 Earnings of wage-earners—93. 180 pp., 18 text figs. 1908.
 Electrical industries of Porto Rico—99. 30 pp. 1909.
 Estimates of population, 1904, 1905, and 1906—71. 28 pp. 1907.
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 The executive civil service of the United States: 1904—12. 240 pp. 1904.
 Executive civil service, statistics of employees: 1907—94. 164 pp., 9 text figs. 1908.
 Geographical distribution of population: 1880, 1890, and 1900—1. 24 pp., 1 text fig. 1903.
 Illiteracy in the United States: 1904—26. 54 pp., 4 text figs. 1905.
 Increase of population: 1890 to 1900, a discussion of—4. 64 pp., 10 text figs. 1903.
 Industrial districts: 1905—101. 82 pp., 14 text figs. 1909.
 Insular and municipal finances in Porto Rico for the fiscal year 1902—3—24. 82 pp. 1905.
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CENSUS—Continued.**

Manufactures, census of 1905—Continued.

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Mortality: 1908—104. 134 pp. 1909.

Same, 1909—108. 138 pp. 1910.

Municipal electric fire-alarm and police-patrol systems: 1902—11. 34 pp., 1 pl. 1904.

Negroes in the United States: 1900—8. 334 pp., 1 pl., 13 text figs. 1904.

Population by States and Territories—Thirteenth Census: 1910—109. 7 pp., 1 text fig. 1910.

BUREAU OF THE CENSUS—BULLETINS OF THE PERMANENT CENSUS—Continued.

- Population of Oklahoma and Indian Territory: 1907—89. 44 pp., 1 pl. (folder). 1907.
- Proportion of children in the United States—22. 28 pp., 2 text figs. 1905.
- Proportion of the sexes in the United States—14. 52 pp., 8 text figs. 1904.
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- Statistics of cities having a population of 8,000 to 25,000: 1903—45. 232 pp. 1906.
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- Supervisors' districts—Thirteenth Census—98. 70 pp., 51 text figs. 1909.
- Supply and distribution of cotton for the year ending August 31, 1905—25. 16 pp., 2 text figs. 1905.
- Same, 1907—90. 28 pp., 1 text fig. 1907.
- Same, 1908—97. 40 pp., 2 pls., 3 text figs. 1908.
- Same, 1909—106. 64 pp., 15 text figs. 1910.
- Same, 1910—110. 32 pp., 3 text figs. 1910.
- Same, 1911—113. 31 pp., 3 text figs. 1911.
- Teachers, census statistics of—23. 20 pp. 1905.
- Telegraph systems: 1907—102. 48 pp., 8 pls., 1 text fig. 1909.
- Telephones and telegraphs: 1902—17. 50 pp. 1905.
- Transportation by water: 1906, United States—91. 58 pp. 1908.
- Vital statistics of the Twelfth Census, a discussion of—15. 24 pp. 1904.

PAMPHLETS.

Forest products:

- No. 1. Pulp-wood consumption: 1908. 12 pp. 1909.
- Same, 1909. 15 pp., 1 text fig. 1911.
- No. 2. Lumber, lath, and shingles: 1908. 53 pp., 2 text figs. 1909.
- Same, 1909. 63 pp., 2 text figs. 1911.
- No. 3. Slack cooperage stock: 1909. 14 pp. 1911.
- No. 4. Tan bark and tanning extracts: 1908. 10 pp. 1909.
- Same, 1909. 14 pp. 1911.
- No. 5. Veneers: 1908. 14 pp. 1909.
- Same, 1909. 23 pp. 1911.
- No. 6. Tight cooperage stock: 1909. 14 pp. 1911.
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- No. 8. Cross-ties purchased: 1900. 11 pp. 1911.
- No. 9. Poles purchased: 1908. 8 pp. 1909.
- No. 9. Poles, cross-arms, brackets, and insular pins purchased: 1909. 14 pp. 1911.
- No. 10. United States: 1908 (consolidated). 138 pp., 2 text figs. 1909.
- No. 10. Forest products of the United States: 1909. 178 pp., 3 text figs. 1911.

MISCELLANEOUS PUBLICATIONS.

- Manual of International classification of causes of death. 178 pp. 1902.
- Same. 146 pp. 1910.
- Heads of families—First Census of the United States: 1790.
- Connecticut. 228 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)
- Maine. 106 pp., 1 pl. (folder). 1903. (For sale only—\$1 per copy.)

BUREAU OF THE CENSUS—MISCELLANEOUS PUBLICATIONS—Cont'd.

Heads of families—First Census of the United States: 1790—Continued.

Maryland. 190 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

Massachusetts. 364 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

New Hampshire. 146 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

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South Carolina. 150 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Vermont. 96 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

Heads of families—State enumerations made in 1782, 1783, 1784, 1785: Virginia. 189 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

COAST AND GEODETIC SURVEY.

The publications here listed are, with a few exceptions, arranged chronologically under their respective subjects. They can be obtained free of charge on application to the Chief of the Division of Publications, Department of Commerce and Labor, Washington, D. C., except Coast Pilots and Tide Tables, which are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing, and Chart Catalogues, which can be obtained free of charge on application to the Superintendent of the Coast and Geodetic Survey. The "List and Catalogue," which is a bibliography of the publications issued by this Bureau, may be consulted at any public library.

ANNUAL REPORTS.

Report of the Superintendent of the Coast and Geodetic Survey, showing the progress of the work from July 1, 1910, to June 30, 1911. 584 pp., 43 figs. and diagrs., 9 progress sketches and 4 maps in pocket. 1911. [There are also on hand a limited supply of each of the annual reports for the years 1852, 1853, 1856, 1860, 1861, 1866-1868, 1870-1874, 1876-1895, 1899-1901, 1903, 1904, 1908-1910.]

GEODESY.

Standard mean places of circumpolar and time stars, prepared for the use of the U. S. Coast Survey. By B. A. Gould. 2d ed. 15 pp. 1866.

On the use of railways for geodetic surveys. By J. E. Hilgard. Report for 1867, app. 9, p. 140-144, sketch 26.

Reports of observations of the eclipse of the sun on August 7, 1869, made by parties of the United States Coast Survey, at the following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under the immediate direction of the Superintendent of the Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts and plates nos. 24, 25, and 26, 16 figs., 1 map, 2 diagrs.

On the use of the zenith-telescope for observations of time. By J. E. Hilgard. Report for 1869, app. 12, p. 226-232.

Extract from a report to Benjamin Peirce, relative to a method of determining elevations along the course of a tidal river, without the aid of a leveling instrument, by Henry Mitchell. Report for 1870, app. 11, p. 98, 99.

Results of the telegraphic determination of the longitude of San Francisco, Cal. Report for 1870, app. 12, p. 100.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Reports of observations upon the total solar eclipse of December 22, 1870. Report for 1870, apps. 16 and 16a, p. 115-177 and 229-232, 8 figs., 1 pl., 1 diag.
- Determination of weights to be given to observations for determining time with portable transit-instruments, recorded by the chronographic method. By Charles A. Schott. Report for 1872, app. 12, p. 222-226.
- Note on intervisibility of stations. By J. E. Hilgard. Report for 1878, app. 18, p. 187, 1 fig.
- A list of stars for observations of latitude. Report for 1873, app. 14, p. 188-174.
- Errata in the Heis catalogue of stars. Report for 1873, app. 15, p. 175-180.
- Geographical positions of prominent places in the United States determined astronomically or geodetically by the United States Coast Survey. Report for 1874, app. 6, p. 62-65.
- Transit of Venus, 1769. Results of observations for determining positions occupied in Lower California and at Philadelphia, reported by Charles A. Schott. Report for 1874, app. 10, p. 131-133, 1 map (sketch 22).
- Improved clamp for the telescope of the theodolite. By George Davidson. Report for 1874, app. 15, p. 153, 1 fig.
- Description of two forms of portable apparatus for the determination of personal equation, both relative and absolute, in observations of star transits. By J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig., 1 diag.
- Field catalogue of 983 transit stars. Mean places for 1870.0. By G. Davidson, '33 pp. 1874.
- A catalogue of stars for observations of latitude. By J. E. Hilgard. Report for 1876, app. 7, p. 83-129.^a
- Comparison of the methods of determining heights by means of leveling, vertical angles and barometric measures, from observations at Bodega Head and Ross Mountain, California. By George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 figs. [Reprinted from report of 1871, app. 16.]^a
- Observations of atmospheric refraction—Contribution No. II. Determination of several heights by the spirit-level, and measures of refraction by zenith-distances, also observations of the barometer at Ragged Mountain, Maine, in July, August, and September, 1874. By F. W. Perkins. Results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a
- On atmospheric refraction and adjustment of hypsometric measures—Contribution No. III. Determination of the coefficient of refraction from zenith-distances observed in northern Georgia, by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of the method of least squares. Discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 figs.^a
- On the adaptation of triangulations to various conditions, depending on the configuration or orographic character of a country and on the degree of accuracy aimed at, with due consideration of the time and means available; also notes on the method of observing horizontal angles and directions in geodetic surveys. By Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 figs. [Reprinted, with additions, from the report for 1871, app. 15.]
- The Pamlico-Chesapeake arc of the meridian and its combination with the Nantucket and the Peruvian arcs, for a determination of the figure of the earth from American measures. By Charles A. Schott. Report for 1877, app. 6, p. 84-95.
- Description of an improved open vertical clamp for the telescopes of theodolites and meridian instruments, devised by George Davidson. Report for 1877, app. 13, p. 182-183, 1 fig.
- Observations of the transit of Mercury, May 6, 1878, made at Summit station, Central Pacific Railroad. By B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl., 1 sketch (27).
- Observations made at Washington, D. C., of the transit of Mercury, May 6, 1878. By Charles A. Schott. Report for 1878, app. 7, p. 88-91.

^a No. 19 of 1876 is also bound with these appendices, and appears under "Allied subjects."

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Adjustment of the primary triangulation between the Kent Island and Atlanta base-lines. By Charles A. Schott. Report for 1878, app. 8, p. 92-120, 1 fig.
- Description of the Davidson meridian instrument. By George Davidson. Report for 1879, app. 7, p. 103-109, 1 pl.
- Comparison of local deflections of the plumb-line in latitude, longitude, and azimuth, at stations of the oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids. By C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.
- On the internal constitution of the earth. By Benjamin Peirce. Report for 1879, app. 14, p. 201.
- On instruments and methods used for precise leveling in the Coast and Geodetic Survey. By O. H. Tittmann. Report for 1879, app. 15, p. 202-211, 1 fig., 1 pl., 1 diag.
- Observations to determine the refraction on lines passing near a surface of water, made at different elevations across the Potomac River. By Andrew Braid. Report for 1879, app. 16, p. 212, 213.
- Report on the results of the longitudes of the Coast and Geodetic Survey determined up to the present time by means of the electric telegraph, together with their preliminary adjustment by the method of least squares. By Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag.
- Explanation of apparatus for observation of telegraphic longitudes, with directions for its use. By Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diags. (34 and 35).
- Report on geodesic night signals. By Chas. O. Boutele. Report for 1880, app. 8, p. 96-109, 1 fig., 1 pl., 1 diag. (36 and 37).
- Report on geodesic leveling on the Mississippi River. By Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diags. (sketches 45, 46, 47).
- An account of a perfected form of the contact-slide base apparatus used in the Coast and Geodetic Survey. By J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. (sketch 82, figs. 1-8).
- Meteorological researches. By William Ferrel. Part III. Barometric hypsometry and reduction of the barometer to sea-level. Report for 1881, app. 10, p. 225-268, illus. 33.
- On a method of readily transferring the underground terminal marks of a base line. By O. H. Tittmann. Report for 1881, app. 13, p. 357, 358.
- On the flexure of pendulum supports. By C. S. Peirce. Report for 1881, app. 14, p. 359-441.
- On the deduction of the ellipticity of the earth from pendulum experiments. By C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.
- On a method of observing the coincidence of vibration of two pendulums. By C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 figs.
- On the value of gravity at Paris. By C. S. Peirce. Report for 1881, app. 17, p. 461-463.
- Description and construction of a new compensation primary base apparatus, including the determination of the length of the corresponding five-meter standard bars. By Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 figs., 2 diags.
- Report of the measurement of the Yolo base, Yolo County, Cal. By George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig., 1 sketch, 2 diags.
- The total solar eclipse of January 11, 1880, observed at Mount Santa Lucia, California. By George Davidson. Report for 1882, app. 20, p. 463-468, 2 diags.
- A new reduction of La Caille's observations, made at the Cape of Good Hope and at Paris between 1749 and 1757, and given in his "Astronomiæ Fundamenta," together with a comparison of the results with the Bradley-Bessel "Fundamenta;" also a catalogue of the places of 150 stars south of declination -30° , for the epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.
- Report of a conference on gravity determinations, held at Washington, D. C., in May, 1882. Report for 1882, app. 22, p. 503-516.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Results for the length of the primary base-line in Yolo County, Cal., measured in 1881 by the party of George Davidson.** Computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag.
- Results of observations for atmospheric refraction on the line Mount Diablo to Martinez, California, in connection with hypsometric measures by spirit level, the vertical circle and the barometer, made in March and April, 1880, by George Davidson.** Reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag.
- Observations of the transit of Venus of December 6, 1882, at Washington, D. C., and at Tepusquet station, California, and at Lehman's ranch, Nevada.** By C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.
- Field catalogue of 1,278 time and circumpolar stars. Mean places for 1885.0.** By George Davidson. Report for 1883, app. 18, p. 383-471.
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., in 1879 and 1880.** By Charles S. Peirce. Report for 1883, app. 19, p. 473-487.
- The run of the micrometer.** By George Davidson. Report for 1884, app. 3, p. 377-385.
- Connection at Lake Ontario of the primary triangulation of the Coast and Geodetic Survey with that of the Lake survey.** Observations by Charles O. Boutelle. Discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map (illus. 20).
- Results of a trigonometrical determination of the heights of the stations forming the Davidson quadrilaterals. California.** Observations by George Davidson, 1876-1882. Discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 figs.
- Longitudes deduced in the Coast and Geodetic Survey from determinations by means of the electric telegraph between the years 1846 and 1885. Second adjustment.** By Charles A. Schott. Report for 1884, app. 11, p. 407-480, 1 diag. (illus. 21).
- Determinations of gravity with the Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal., and Washington, D. C.** By Edwin Smith. Report for 1884, app. 14, p. 439-473.
- On the use of the noddly for measuring the amplitude of swaying in a pendulum support.** By C. S. Peirce. Report for 1884, app. 15, p. 475-482.
- Note on the effect of the flexure of a pendulum upon its period of oscillation.** By C. S. Peirce. Report for 1884, app. 16, p. 483-485.
- Geographical positions of trigonometrical points in the States of Massachusetts and Rhode Island, determined by the United States Coast and Geodetic Survey between the years 1835 and 1885, and including those determined by the Borden survey in the years 1832 to 1838.** By Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps (illus. 25, 26).
- Results deduced from the geodetic connection of the Yolo base line with the primary triangulation of California. Also a reduction and adjustment of the Davidson quadrilaterals forming part of that triangulation.** By Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.
- Note on a device for abbreviating time reductions.** By C. S. Peirce. Report for 1885, app. 15, p. 503-508.
- On the influence of a noddly on the period of a pendulum.** By C. S. Peirce. Report for 1885, app. 16, p. 509, 510.
- On the effect of unequal temperature upon a reversible pendulum.** By C. S. Peirce. Report for 1885, app. 17, p. 511, 512.
- Fluctuations in the level of Lake Champlain and average height of its surface above the sea.** A preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. (illus. 33).
- Heights from spirit-levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, in 1885-86.** Report by Charles A. Schott. Report for 1887, app. 9, p. 185-206.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Report of the results of spirit-leveling of precision about New York Bay and vicinity in 1886 and 1887.** Observations by John B. Weir and J. E. McGrath. Discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map (illus. 43).
- A bibliography of geodesy.** By J. Howard Gore. Report for 1887, app. 16, p. 313-512.
- Geographical positions of trigonometrical points in the State of Connecticut, determined by the U. S. Coast and Geodetic Survey between the years 1883 and 1886.** Introduction and explanation of the tabular results. By Charles A. Schott. Report for 1888, app. 8, p. 313-403, map.
- Heights from spirit-leveling of precision between Mobile, Ala., and Okolona, Miss.** Observations by J. B. Weir and J. E. McGrath, in 1884, 1886, and 1887. Report by Charles A. Schott. Report for 1888, app. 10, p. 409-426.
- Heights from spirit-leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark.** Report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453.
- Heights from spirit-leveling of precision between Arkansas City (on the Mississippi River) and Little Rock, Ark.** Observations by J. E. McGrath, in 1887-88. Report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.
- Differential method of computing the apparent places of stars for determinations of latitude.** By E. D. Preston. Report for 1888, app. 13, p. 465-470.
- Determinations of latitude and gravity for the Hawaiian government.** By E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pls., 5 maps, 5 diag.
- Same, abstract.** Bull., no. 11, p. 137-142, 1 fig. and 3 progress maps. 1889.
- Report on the measurement of the Los Angeles base line, Los Angeles and Orange counties, California.** By George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag.
- Results of spirit-leveling between tide-water at Annapolis, Md., and the Capitol bench-mark at Washington, D. C., from observations in 1875 by F. W. Perkins.** Report by C. A. Schott. Report for 1889, app. 15, p. 461-466.
- Report on the resulting length and probable uncertainty of five principal base lines, measured with the compensation base apparatus, Bache-Würdemann, of the Coast Survey, between the years 1847 and 1855, inclusive.** By Charles A. Schott. Report for 1889, app. 17, p. 479-491.
- Report of George Davidson, appointed by the President of the United States as the delegate to the Ninth Conference of the International Geodetic Association held at Paris, October, 1889.** Report for 1889, app. 18, p. 493-503, 1 fig.
- Telegraphic determination of the longitude of Mount Hamilton, California.** Field work by C. H. Sinclair and R. A. Marr. By Charles A. Schott. Bull., no. 13, p. 147-150. 1889.
- Description of two new transit instruments for longitude work.** Constructed at the office of the Survey from designs by Edwin Smith. Bull., no. 16, p. 161-164, 1 fig., 1 diag. 1889.
- Determinations of gravity and the magnetic elements in connection with the U. S. scientific expedition to the west coast of Africa, 1889-1890.** By E. D. Preston. Report for 1890, app. 12, p. 625-684, 16 figs., 10 pls., 1 map. [Includes observations on some islands in the North and South Atlantic ocean.]
- Same, abstract.** Bull., no. 22, p. 219-223, 1 map, 7 pls. 1891.
- International Geodetic Association. Ninth Conference. Paris, October 3-12, 1889.** Address of George Davidson, appointed as delegate to the association on the part of the United States. Report for 1890, app. 17, p. 721-733.
- Approximate times of culminations and elongations and the azimuths at elongation of Polaris for the years between 1889 and 1910.** Submitted for publication as a bulletin November 21, 1889, by Charles A. Schott, and first published February 18, 1890. Report for 1891, pt. 2, app. 1, p. 7-13. [Reprinted from Bull. no. 14.]

COAST AND GEODETIC SURVEY—GEODESY—Continued.

On the determination of an azimuth from micrometric observations of a close circumpolar star near elongation by means of a meridian transit, or by means of a theodolite with eyepiece micrometer. Submitted for publication as a bulletin December 12, 1890, and first published February 26, 1891. Report on method and example of computation by Charles A. Schott. Observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull., no. 21.]

The transit of Mercury of May 9, 1881, as observed at Waikiki, Hawaiian Islands. By E. D. Preston. Report for 1891, pt. 2, app. 12, p. 475-477.

Report of an expedition to Muir glacier, Alaska, with determinations of latitude and the magnetic elements at Camp Muir, Glacier Bay. By Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.

On the variation of latitude at Rockville, Md., as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association, by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 figs., 2 pls., 2 diags.

Same, abstract. Bull., no. 25, p. 237-261, 2 diags. 1892.

On the variation of latitude at Waikiki, near Honolulu, Hawaiian Islands, as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association. By E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 1 fig., 3 pls., 2 maps, 9 diags.

On the results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Welr, Isaac Winston, P. A. Welker, and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 3, p. 161-203, 1 fig., 1 map.

On the results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations made in 1890 and 1891 by Isaac Winston and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224.

On the measurement of the Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va. Report for 1892, pt. 2, app. 8, p. 320-503, 2 figs., 2 pls., 2 diags.

Measure of the irregularity in one turn of the micrometer screw, and the relative value of each turn. By George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag.

On the direct synthetical method of adjusting a triangulation. By Chas. H. Kummell. Report for 1892, pt. 2, app. 12, p. 535-552, 4 figs.

On the resulting heights from geodetic leveling along the transcontinental line of levels between St. Louis and Jefferson City, Mo., executed in the years 1882 and 1888, by Andrew Braid, Gershom Bradford, and Isaac Winston. Discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-86, 1 fig., 1 diag.

On photography as applied to obtain an instantaneous record of lunar distances for determinations of longitude. By C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124.

On the measurement of base line with steel tapes and with steel and brass wires. By Edw. Jäderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl., 1 diag.

Proceedings of the Geodetic Conference, held at Washington, D. C., January 9 to February 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 4 figs., 7 pls., 1 map, 1 diag.

The variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson between May, 1891, and August, 1892. Discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diags.

Determinations of latitude, gravity, and the magnetic elements at stations in the Hawaiian Islands, including a result for the mean density of the earth. 1891, 1892. By E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 12 figs., 8 pls., 2 maps, 6 diags.

Results of observations for the variations of latitude at Waikiki, Hawaiian Islands, in cooperation with the work of the International Geodetic Association. By E. D. Preston. Bull., no. 27, p. 6-20, 2 diags. 1893.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- The constant of aberration as determined from a discussion of results for latitude at Waikiki, Hawaiian Islands. By E. D. Preston. Bull., no. 28, p. 21-34, 1 diag. 1893.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations. By G. R. Putnam; and a report on a geologic examination of some Coast and Geodetic Survey gravity stations. By G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 figs., 1 diag.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore. By E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig.
- Notes on some instruments recently made in the instrument division of the Coast and Geodetic Survey office. By Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pls.
- Geographic positions of trigonometric points in the State of Massachusetts, determined by the United States Coast and Geodetic Survey between the years 1843 and 1894, and including those determined by the Survey made by Borden in the years 1832 to 1838. (2d enlarged and revised ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 8 maps.
- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 3, p. 333-344.
- Graphic method of reducing stars from mean to apparent places. By E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diags.
- Description of leveling rods designed and constructed for use in geodetic leveling operations. By Isaac Winston. Report for 1895, pt. 2, app. 8, p. 381, 382, 2 diags.
- Tables of azimuth and apparent altitude of Polaris at different hour angles. By G. R. Putnam. Report for 1895, app. 10, p. 393-398.
- The constant of aberration as determined from observations of latitude at San Francisco, Cal. Discussion by E. D. Preston. Observations by George Davidson. Bull., no. 32, p. 109-120. 1895.
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir between September and November, 1884, and by I. Winston between December, 1891, and February, 1892. By C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map.
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations made by J. B. Weir in September and October, 1883, and September and October, 1884, with releveling by J. B. Weir between Richmond and Fredericksburg, Va., in May and June, 1886, and verification leveling between the two cities by I. Winston between April and June, 1895. By Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map.
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations made by J. B. Weir between July and September, 1883. Report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map.
- Resulting heights from spirit leveling between Jefferson City, Mo., and Holli-day, Kans., from observations by I. Winston and F. A. Young between April 21 and October 13, 1891. Report by C. A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig., 1 map.
- Field method of reducing portable transit time observations. By G. R. Putnam. Report for 1896, app. 9, p. 347-352.
- Determination of the constant of aberration from latitude observations with the zenith telescope at Honolulu, H. I., and San Francisco, Cal. By E. D. Preston. Report for 1896, app. 10, p. 353-371, 2 diags.
- The telegraphic longitude net of the United States and its connection with that of Europe, 1866-1896. By C. A. Schott. Report for 1897, app. 2, p. 197-261, 1 map.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by the party under the charge of Fremont Morse. By Charles A. Schott. Report for 1897, app. 8, p. 263-268.
- Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston between July 11 and October 23, 1896. By Chas. A. Schott. Report for 1897, app. 4, p. 269-283, 1 fig.
- Results of pendulum observations made in 1896 and 1896. By G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl., 1 map.
- The duplex base apparatus, and directions for its use in the field. By William Elmbeck. Report for 1897, app. 11, p. 737-752, 2 figs., 3 pls., 1 diag.
- Report on the measurement of the Salt Lake base line, in Utah. By William Elmbeck. Report for 1897, app. 12, p. 753-774, 1 fig., 6 pls., 1 map, 2 diags.
- Resulting heights from spirit leveling between Salina and Ellis, Kans., from observations made by I. Winston between July 2 and September 9, 1896. Report by C. A. Schott. Report for 1898, app. 1, p. 179-193, 1 fig.
- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston between June 11 and November 17, 1897. Report by C. A. Schott. Report for 1898, app. 2, p. 195-214, 2 figs.
- Resulting heights from spirit leveling between Hugo and Colorado Springs, Colo., from observations by I. Winston between April 20 and July 8, 1898. Report by C. A. Schott. Report for 1898, app. 3, p. 215-223, 1 fig.
- Inquiry into the relative value and need of a check of the Peruvian arc of 1736-1743. By C. A. Schott. Report for 1898, app. 4, p. 229-232.
- Physical observations made in connection with the Pribilof Islands survey of 1897. By G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig., 1 map.
- Report on the proceedings of the International Geodetic Association Conference at Stuttgart, Germany, October 3 to 12, 1898, and on geodetic operations in the United States. By E. D. Preston, delegate on the part of the United States. Report for 1898, app. 6, p. 243-260, 1 pl., 3 maps.
- The International Geodetic Association for the measurement of the earth. By Erasmus D. Preston, delegate on the part of the United States at the Twelfth General Conference. Report for 1899, app. 3, p. 241-269, 1 map.
- Determinations of gravity at the Polytechnic Institute, Worcester, Mass., and at Columbia University, New York City, with pendulum apparatus B. By Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 figs.
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston between May 12 and October 21, 1899. By Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig.
- Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton between May 8 and October 17, 1899. By B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig.
- Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson between June 3 and November 23, 1899. Report by O. W. Ferguson. Report for 1899, app. 7, p. 321-345, 1 fig.
- Precise leveling in the United States. By John F. Hayford. Report for 1899, app. 8, p. 347-386, 3 figs., 8 pls., 2 maps.
- The oblique boundary line between California and Nevada. By C. H. Sinclair. Report for 1900, app. 3, p. 255-484, 121 figs., 32 pls., 15 maps.
- The international latitude service at Gaithersburg, Md., and Ukiah, Cal., under the auspices of the International Geodetic Association, by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495-520, 1 fig., 2 pls., 2 maps, 2 diags.
- The determination of the mean value of one revolution of a micrometer screw and the progressive and periodic errors of the screw, from observations on a circumpolar star near its elongation. By Edwin Smith. Report for 1900, app. 8, p. 701-712.
- The transcontinental triangulation and the American arc of the parallel. By Chas. A. Schott. Special publication no. 4. 871 pp., 2 figs., 17 pls., 4 maps, 33 diags. 1900.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Table of coefficients for reducing inclined sights on vertical rod to horizontal distance. 4 pp. 1900.
- Table of factors for computing differences in elevation (in feet). Table of corrections for curvature and refraction (in feet). 4 pp. 1900.
- Table of factors for computing differences in elevation (in meters). Table of corrections for curvature and refraction (in meters). 4 pp. 1900.
- Table showing the height in meters, corresponding to given angles of elevation and distances in meters. 4 pp. 1900.
- On the measurement of nine base lines along the ninety-eighth meridian. By A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229-302.
- Extension of tables for the computation of geodetic positions to the Equator. By John F. Hayford. Report for 1901, app. 4, p. 303-339.
- Determination of relative value of gravity in Europe and the United States in 1900. By G. R. Putnam. Report for 1901, app. 5, p. 341-355.
- Triangulation northward along the ninety-eighth meridian in Kansas and Nebraska. By John F. Hayford. Report for 1901, app. 6, p. 357-423.
- Triangulation in Kansas. By J. F. Hayford. Report for 1902, app. 3, p. 211-293, 5 sketch maps.
- A bibliography of geodesy. 2d ed. By J. H. Gore. Report for 1902, app. 8, p. 427-787.
- The eastern oblique arc of the United States and osculating spheroid. By Chas. A. Schott. Special publication no. 7. 394 pp., 12 pls., 2 maps, 25 diags. 1902.
- Precise leveling in the United States, 1900-1903, with a readjustment of the level net and resulting elevations. By J. F. Hayford. Report for 1903, app. 3, p. 189-810, 2 views, 14 maps and sketches, 6 diags.
- Triangulation southward along the ninety-eighth meridian in 1902. By J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diags.
- Report on geodetic operations in the United States, 1900-1903, to the Fourteenth General Conference of the International Geodetic Association. By O. H. Tittmann. 28 pp., 1 illus. 1903.
- Telegraphic longitudes. The Pacific arcs from San Francisco to Manila, 1903-4, completing the circuit of the earth. By Edwin Smith. Report for 1904, app. 4, p. 259-311, 13 illus.
- Precise leveling from Red Desert, Wyoming, to Owyhee, Idaho, 1903. By J. F. Hayford. Report for 1904, app. 6, p. 403-480.
- Precise leveling from Holland to New Braunfels, Texas, 1903. By J. F. Hayford. Report for 1904, app. 7, p. 433-450.
- A test of a transit micrometer. By John F. Hayford. Report for 1904, app. 8, p. 453-487, 2 illus.
- Triangulation in California, Part I. By A. L. Baldwin. Report for 1904, app. 9, p. 491-764, 21 illus.
- Precise leveling from Red Desert, Wyoming, to Seattle, Washington, 1903-4. By J. F. Hayford. Report for 1905, app. 4, p. 193-241.
- Triangulation along the ninety-eighth meridian, Lampasas to Seguin, Texas. By J. F. Hayford. Report for 1905, app. 5, p. 243-282, 2 diags.
- The earth movements in the California earthquake of 1906. By J. F. Hayford and A. L. Baldwin. Report for 1907, app. 3, p. 67-104, 2 maps in colors.
- Six primary bases measured with steel and invar tapes. By O. B. French. Report for 1907, app. 4, p. 105-156.
- Precise leveling in the United States, 1903-1907, with a readjustment of the level net and resulting elevations. By J. F. Hayford and L. Pike. 280 pp., 1 map. 1909.
- The figure of the earth and isostasy from measurements in the United States. By J. F. Hayford. 178 pp., 6 maps, 11 diags. 1909.
- Geodetic operations in the United States, 1906-1909. A report to the Sixteenth General Conference of the International Geodetic Association. By O. H. Tittmann and J. F. Hayford. 11 pp. 1909.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Supplementary investigation in 1909 of the figure of the earth and isostasy. By J. F. Hayford. 80 pp., 5 maps, 1 diag. 1910.
- Primary base lines at Stanton, Texas, and Deming, New Mexico. By William Bowie. Report for 1910, app. 4, p. 143-171, 5 text figs.
- Triangulation in California, Part II. By C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diags.
- Measurement of the flexure of pendulum supports with the interferometer. By W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text figs.
- Formulae and tables for the computation of geodetic positions. 5th edition, with a preface by C. R. Duvall. Special publication no. 8. 91 pp. 1911.
- The effect of topography and isostatic compensation upon the intensity of gravity. By John F. Hayford and William Bowie. Special publication no. 10. (In press.)
- Triangulation along the ninety-eighth meridian, Nebraska to Canada, and connection with the Great Lakes. By William Bowie. Report for 1911, app. 4, p. 161-342, 12 text figs.
- Same, Seguin to Point Isabel, Tex. By A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text figs.
- Triangulation along the east coast of Florida, and on the Florida Keys. By Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text figs.

HYDROGRAPHY.

- Report of Henry L. Whiting, on the special survey of Provincetown Harbor, Massachusetts. Report for 1867, app. 12, p. 149-157.
- Report upon surveys in the Merrimack River, made in 1867 by Henry Mitchell. Report for 1867, app. 14, p. 170-175, 1 map, sketch 2.
- Abstract of a paper read before the National Academy of Sciences, April 16, 1869, on the earthquake-wave of August 14, 1868. By J. E. Hilgard. Report for 1869, app. 13, p. 233, 234.
- On the probable effect of extended piers in modifying the channel facilities of San Francisco Bay, near Yerba Buena Island. By Henry Mitchell. Report for 1870, app. 18, p. 180, 181.
- Tidal researches. By William Ferrel. xiii+268 pp., 13 figs. 1874.
- Discussion of tides in New York Harbor. By William Ferrel. Report for 1875, app. 12, p. 194-221.
- Methods of registering tidal observations. By R. S. Avery. Report for 1876, app. 8, p. 130-142, 10 figs.
- Report concerning the location of a quay or pier line in the vicinity of the United States navy-yard at New York. By Henry Mitchell. Report for 1876, app. 11, p. 186-189, sketch 23.
- On tides and tidal action in harbors. By J. E. Hilgard. Reprinted from Smithsonian report for 1874. 22 pp. 1876.
- Description of an apparatus devised for observing currents in connection with the physical survey of the Mississippi River. Report by H. L. Marindin. Report for 1877, app. 9, p. 104-107, 2 figs.
- Description of an optical densimeter for ocean water. By J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig.
- Observations of the density of the waters of Chesapeake Bay and its principal estuaries. Report by Frederick Collins. Report for 1877, app. 14, p. 184-190, 2 figs.
- Physical hydrography of the Gulf of Maine. By Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig., 2 diags.
- Addendum to a report on a physical survey of the Delaware River. By Henry Mitchell. Report for 1879, app. 13, p. 199, 200, 1 diag.
- Comparison of the surveys of Delaware River in front of Philadelphia, 1843 and 1878. By H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diags.
- Report on comparison of surveys of Mississippi River in the vicinity of Cubitt's Gap. By H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag. (44).

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Report on the oyster beds of the James River, Virginia, and of Tangier and Pocomoke sounds, Maryland and Virginia. By Francis Winalow. Report for 1881, app. 11, p. 269-353, 7 pls., 3 maps, 15 diags. (illus. 39-63).
- Report on a new rule for currents in Delaware Bay and River. By Henry Mitchell. Report for 1881, app. 18, p. 464-469, 1 fig.
- Comparison of the survey of Delaware River of 1819, between Pettys and Tincum islands, with more recent surveys. By Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diags. (sketches 41, 42, and 43).
- Study of the effect of river bends in the Lower Mississippi. By Henry Mitchell. Report for 1882, app. 16, p. 433-436, 1 diag. (sketch 44).
- Discussion of the tides of the Pacific coast of the United States. By William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diags. (sketches 45, 46, 47).
- Report on the Siemens electrical deep-sea thermometer. By J. R. Bartlett. (Accompanied by a description of the apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 figs., 2 diags. (Nos. 48, 49).
- The estuary of the Delaware. A report by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig., 1 diag. (No. 25). [See also Report for 1887, app. 18.]
- Report on the harmonic analysis of the tides at Sandy Hook. By William Ferrel. Report for 1883, app. 9, p. 247-251, 1 map (sketch 26).
- Physical hydrography of Delaware River and Bay. Comparison of recent with former surveys. By H. L. Marindin. Report for 1884, app. 12, p. 481-484, 2 diags. (sketches 22, 23).
- Description of a model of the depths of the sea in the Bay of North America and Gulf of Mexico. By J. E. Hilgard. Report for 1884, app. 17, p. 619-621, 1 map (illus. 25).
- Comparison of transverse sections in the Delaware River, between old navy-yard and east end of Pettys Island, for the years 1819, 1843, and 1878. By Henry L. Marindin. Report for 1885, app. 12, p. 487, 488.
- On the harmonic analysis of the tides at Governors Island, New York Harbor. By William Ferrel. Report for 1885, app. 13, p. 489-493, 1 map (illus. 35).
- Report on deep-sea current work in the Gulf Stream. By J. E. Pillsbury. Report for 1885, app. 14, p. 495-501, 1 pl., 2 maps, 8 diags.
- A report on Monomoy and its shoals. By Henry Mitchell and Charles O. Boutelle. Report for 1886, app. 8, p. 255-261, 2 maps.
- Report of changes in the shore line and beaches of Marthas Vineyard as derived from comparisons of recent with former surveys. By Henry L. Whiting. Report for 1886, app. 9, p. 263-266, 1 map (illus. 21).
- A report on the delta of the Delaware. By Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. (illus. 22).
- A report of Gulf Stream explorations—Observations of currents, 1886. By J. E. Pillsbury. Report for 1886, app. 11, p. 281-290, 6 diags. (plates 23 to 28) presenting curves of observations of currents in the Gulf Stream during 1885 and 1886.
- On the circulation of the sea through New York Harbor. A report by Henry Mitchell. Report for 1886, app. 13, p. 400-432, 3 figs., 3 diags. (illus. 34-39).
- On the movements of the sands at the eastern entrance to Vineyard Sound. By Henry Mitchell. Report for 1887, app. 6, p. 159-163, 1 map, 1 diag. (illus. 31, 32).
- Gulf Stream explorations—Observations of currents, 1887. By J. E. Pillsbury. Report for 1887, app. 8, p. 173-184, 2 maps, 7 diags. (illus. 34-42).
- Addendum to a report on the estuary of the Delaware. By Henry Mitchell. Report for 1887, app. 13, p. 269-273. [Supplementary to report for 1883, app. 8, p. 239-245.]
- Report on the results of the physical surveys of New York Harbor. By Henry Mitchell. Report for 1887, app. 15, p. 301-311, 1 fig., 6 diags. (illus. 44-49).
- Tide levels and flow of currents in New York Bay and Harbor. By Henry L. Marindin. Report for 1888, app. 9, p. 406-408, 12 maps.
- Same, abstract. Bull., no. 3, p. 7-12, 2 maps. 1888.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Encroachment of the sea upon the coast of Cape Cod, Massachusetts, as shown by comparative surveys.** By Henry L. Marindin. Report for 1880, app. 12, p. 403-407, 1 map.
- Cross-sections of the shore of Cape Cod between Chatham and the Highland light-house.** By Henry L. Marindin. Report for 1889, app. 13, p. 409-457, 1 map.
- Recent changes in the south inlet into Edgartown Harbor, Marthas Vineyard.** By Henry L. Whiting. Report for 1889, app. 14, p. 459, 460, 1 map.
- Gulf Stream explorations—Observations of currents, 1888 and 1889.** By J. E. Pillsbury. Report for 1889, app. 16, p. 467-477, 8 maps, 12 diags.
- Currents of New York Bay and Harbor.** Compiled by B. A. Colonna from the notes of a physical survey by H. L. Marindin. Bull., no. 8, p. 41-43. 2d ed. 1880.
- Report on the sounds and estuaries of North Carolina with reference to oyster culture.** By Francis Winslow. Bull., no. 10, p. 51-136, 2 maps, 1 diag. 1889.
- A syphon tide-gauge for the open seacoast.** By Henry L. Marindin. Bull., no. 12, p. 143-146, 1 diag. 1889.
- On the use of observations of currents for prediction purposes.** By John F. Hayford. Report for 1890, app. 14, p. 691-703.
- Comparison of the predicted with the observed times and heights of high and low water at Sandy Hook, New Jersey, during the year 1889.** A report by Alex. S. Christie of the results of an investigation made under his direction by John F. Hayford. Report for 1890, app. 15, p. 705-714, 2 diags.
- On the reduction of hydrometer observations of salt-water densities.** Submitted for publication, February 18, 1890, by O. H. Tittmann. Revised for republication, February 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277.
- On the changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by a comparison of surveys made between 1835, 1867, and 1890.** By Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps.
- Cross-sections of the shore of Cape Cod, Massachusetts, between the Cape Cod and Long Point light-houses.** By Henry L. Marindin. Report for 1891, pt. 2, app. 9, p. 289-341.
- On observations of currents with the direction-current meter in the Straits of Florida and in the Gulf of Mexico, 1891.** By E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl., 1 map, 7 diags.
- On the sounds and estuaries of Georgia with reference to oyster culture.** By J. C. Drake. Bull., no. 19, p. 179-209, 7 maps. 1891.
- Changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor, as shown by a comparison of surveys made between 1867 and 1890.** By H. L. Marindin. Bull., no. 24, p. 233-235. 1891.
- On the tides and currents in the harbor of Edgartown and in Katama Bay, Marthas Vineyard.** By Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diags.
- On the changes in the ocean shore lines of Nantucket Island, Massachusetts, from a comparison of surveys made in the years 1846 to 1887 and in 1891.** By Henry L. Marindin. Report for 1892, pt. 2, app. 6, p. 243-252, 1 map, 3 diags.
- Manual of tides. Part III. Some connections between harmonic and nonharmonic quantities, including applications to the reduction and prediction of tides.** By Rollin A. Harris. Report for 1894, pt. 2, app. 7, p. 125-262, 1 fig., 3 diags.
- Report on the changes in the depths on the bar at the entrance to Nantucket inner harbor, Massachusetts, between the years 1888 and 1893.** By H. L. Marindin. Report for 1895, app. 5, p. 347-354, 4 diags.
- Notes on the specific gravity of the waters of the Gulf of Mexico and the Gulf Stream.** By A. Lindenkohl. Report for 1895, app. 6, p. 355-369, 8 figs., 2 maps.
- Compilation of the most recent information relative to the harbors, anchorages, and dangers to navigation in the vicinity of Chatham and Peril straits and Cooks inlet, Alaska.** Arranged and compiled by Hugh Rodman. Report for 1896, app. 11, p. 878-893.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

Notes relating to self-registering tide gauges as used by the U. S. Coast and Geodetic Survey. By J. F. Pratt. Report for 1897, app. 7, p. 313-318, 2 figs., 3 pls.

Problems in physiography, concerning salinity and temperature of the Pacific Ocean. By A. Lindenkohl. Report for 1898, app. 9, p. 463-473, 1 fig., 2 diag.

Alaska. Hydrographic notes and sailing directions relating to portions of Alaska from Dixon Entrance to Yakutat Bay, including reconnaissance surveys of Cordova Bay, Bucurelli Bay, and Red Fish Bay. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 87, p. 110-118, 3 maps. 1899.

Alaska. Hydrographic notes, sailing directions, and charts of surveys relating to the vicinity of Prince William Sound, Cook Inlet, Kadiak Island, and route from Unalaska to Chignik, through Unimak Pass and inside the Islands. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 38, p. 119-142, 6 maps. 1899.

Alaska. Predicted times of slack water at Seymour Narrows, Discovery Passage, British Columbia, and at Sergius Narrows, Peril Strait, Alaska, from May to December, 1899. Prepared from observations by E. K. Moore. Bull., no. 39, p. 143-150. 1899.

Channel and harbor sweep. Description by D. B. Wainwright. Report for 1903, app. 6, p. 1005-1010, 1 view.

Manual of tides. Part IVb. Cotidal lines for the world. By R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus.

Long wire sweep. By D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diag.

General instructions for coast surveys in the Philippine Islands. 92 pp., 15 figs. 1906.

Manual of tides. Part V. Currents, shallow-water tides, meteorological tides, and miscellaneous matters. By R. A. Harris. Report for 1907, app. 6, p. 231-546. 22 diag. 7 charts.

Survey of oyster bars, Anne Arundel County, Md. Description of boundaries and landmarks, and report of work of United States Coast and Geodetic Survey in cooperation with Maryland Shell Fish Commission. By C. C. Yates. 106 pp., 1 map. 1907

Survey of oyster bars, Somerset County, Md. Description of boundaries and landmarks, and report of work of the United States Coast and Geodetic Survey in cooperation with the United States Bureau of Fisheries and the Maryland Shell Fish Commission. By C. C. Yates. 118 pp., map. 1908.

Same, Wicomico County, Md. By C. C. Yates. 54 pp., map. 1909.

Same, Worcester County, Md. By C. C. Yates. 67 pp., 1 map. 1909.

Same, Calvert County, Md. By C. C. Yates. 94 pp., 1 map. 1910.

Same, Charles County, Md. By C. C. Yates. 62 pp., 1 map. 1911.

Same, St. Marys County, Md. By C. C. Yates. 203 pp., 1 map. 1911.

Same, Baltimore County, Md. By C. C. Yates. 42 pp., 1 map. 1911.

Same, Kent County, Md. By C. C. Yates. (In press.)

Same, Queen Annes County, Md. By C. C. Yates. (In press.)

Description of long wire drag. By N. H. Heck. 21 pp., illus. 1910.

Table of depths for channels and harbors, coasts of the United States, including Porto Rico, the Hawaiian Islands, and the Philippine Islands. (Replaces Bull. no. 36.) 159 pp. 1910.

Arctic tides. By R. A. Harris. 108 pp., 3 charts. 1911.

COAST PILOTS.

These are a series of volumes covering the continental coasts of the United States, Porto Rico, and a portion of Alaska, containing descriptions of the coast and harbors, sailing directions, and general information, etc., for the use of mariners. They are corrected to date

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

COAST PILOTS—continued.

of issue as nearly as practicable, and supplements or new editions issued from time to time.

U. S. Coast Pilot: Atlantic coast. Parts I-II. From St. Croix to Cape Ann. 3d ed. 1911. 200 pp., 2 maps. 50 cents.

Same, Part III. From Cape Ann to Point Judith. 2d ed. 1903. 199 pp., 2 maps, 1 illus. 50 cents.

Same, Part IV. From Point Judith to New York. 5th ed. 1909. 212 pp., 3 maps, 1 illus. 50 cents.

Same, Part V. From New York to Chesapeake Bay entrance. 4th ed. 1909. 166 pp., 4 maps, 1 illus. 50 cents.

Same, Part VI. Chesapeake Bay and tributaries. 3d ed. 1907. 192 pp., 2 maps. 50 cents.

Same, Part VII. From Chesapeake Bay entrance to Key West. 3d ed. 1906. 223 pp., 3 maps, 3 illus. 50 cents.

Same, Part VIII. Gulf of Mexico from Key West to the Rio Grande. 3d ed. 1908. 177 pp., 4 illus. 50 cents.

U. S. Coast Pilot: Pacific coast. California, Oregon, and Washington. 2d ed. 1909. 251 pp., 5 maps, 6 illus. 50 cents.

Same, Alaska. Part I. Dixon entrance to Yakutat Bay, with inland passage from Juan de Fuca Strait to Dixon entrance. 5th ed. 1908. 239 pp., 9 pls., 5 charts. 50 cents.

U. S. Coast Pilot: West Indies. Porto Rico. 1906. 116 pp., 1 map, 1 chart, 14 illus. 50 cents.

Alaska. Coast Pilot notes from Yakutat Bay to Cook Inlet and Shellkof Strait. 2d ed. 82 pp. 1910.

Alaska. Coast Pilot notes on Bering Sea and the Arctic Ocean. 1908. 65 pp. (Replaces Bulletin No. 40.)

TIDE TABLES.

These are issued annually and contain predictions for the ports of the United States, including Porto Rico, Alaska, Hawaii, and the Philippine Islands, and also predictions for the principal foreign ports:

Tide tables for the world. 50 cents.

Tide tables for the Atlantic coast of the United States, including Canada and the West Indies. (Reprinted from the Tide tables for the world.) 15 cents.

Tide tables for the Pacific coast of the United States. (Reprinted from the Tide tables for the world.) 10 cents.

CHART CATALOGUES.

These contain lists of the latest coast pilots, tide tables, sailing directions, miscellaneous maps and plans, and charts issued by the Survey:

Catalogue of charts, coast pilots, and tide tables. 1911. 228 pp.

Catalogue of charts, sailing directions, and tide tables of the Philippine Islands. 1910. 54 pp.

SAILING DIRECTIONS FOR THE PHILIPPINE ISLANDS.

These contain descriptions of the coasts and harbors of the Philippine Islands, together with sailing directions for those coasts and harbors:

Philippine Islands: Sailing directions. Section I. North and west coasts of Luzon and adjacent islands from Cape Engaño to Manila Bay. 3d ed. 1906. 101 pp. (Supp. 1909. 5 pp.)

Same, Section II. Southwest and south coasts of Luzon and adjacent islands, between Manila and San Bernardino Strait. 4th ed. 1910. 102 pp.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

TIDE TABLES—continued.

- Philippine Islands: Sailing directions. Section III. Coast of Panay, Negros, Cebu, and adjacent islands. 3d ed. 1906. 109 pp.
- Same, Section IV. Coasts of Samar and Leyte, and the east coast of Luzon. 3d ed. 1908. 168 pp.
- Same, Section V. Coasts of Mindanao and adjacent islands. 3d ed. 1910. 135 pp.

NOTICE TO MARINERS.

These contain corrections that are to be applied to charts in order to keep them up to date. On January 1, 1908, the monthly Notice to Mariners, excepting those pertaining to the Philippine Islands, were, by direction of the Secretary of Commerce and Labor, consolidated with and made a part of the weekly Notice to Mariners issued by the Bureau of Lighthouses.

Notice to mariners. Philippine Islands. Issued monthly.

TOPOGRAPHY.

- Special report on the comparative progress and expenditure of the Coast Survey, in different years. Foreign surveys, etc. 18 pp. 1858.
- Type forms of topography, Columbia River. By E. Hergeshelmer. Report for 1881, app. 7, p. 124-125, 7 figs., 1 map.
- Proceedings of the Topographical Conference held at Washington, D. C., January 18 to March 7, 1892. Report for 1891, pt. 2, app. 16, p. 565-746, 25 figs., 2 pls., 1 map, 5 diags.
- Phototopography as practiced in Italy under the auspices of the Royal Military Geographical Institute, and as practiced in the Dominion of Canada under the auspices of the department of the Interior. Also a short historical review of other phototopographic surveys and publications on the subject. By J. A. Flemer. Report for 1893, pt. 2, app. 3, p. 37-116, 30 figs., 2 pls.
- Subdivision 1. List of original topographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2209, inclusive. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2222, inclusive. Report for 1895, app. 11, p. 399-516.
- A plane table manual. By D. B. Wainwright. Report for 1905, app. 7, p. 289-342, 27 diags., 6 illus.

TERRESTRIAL MAGNETISM.

- New discussion of the distribution of the magnetic declination on the coast of the Gulf of Mexico, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^a
- New discussion of the distribution of the magnetic declination on the coast of Virginia, North Carolina, South Carolina, and Georgia, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 24, p. 250-259, 1 map.^a
- Development of Bessel's function for the effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.
- Report on the results from the observations made at the magnetical observatory, on Capitol Hill, Washington, D. C., between 1867 and 1869. By Charles A. Schott. Report for 1869, app. 9, p. 199-207.
- New investigation of the secular changes in the declination, the dip, and the intensity of the magnetic force, at Washington, D. C. By Charles A. Schott. Report for 1870, app. 14, p. 107-110.

^a Bound with 16, 17, 18, 19, 20, 21, and 25 of Report for 1861.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Cont'd.

- On a chart of the magnetic declination in the United States, constructed by J. E. Hilgard.** Report for 1876, app. 21, p. 400, 401, 1 map.
- On the secular change of magnetic declination in the United States and at some foreign stations.** By Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.
- An inquiry into the variation of the compass off the Bahama Islands, at the time of the landfall of Columbus in 1492.** By Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map (sketch 84).
- Terrestrial magnetism.** Collection of results for declination, dip, and intensity, from observations made by the United States Coast and Geodetic Survey between 1833 and 1882, July. By Charles A. Schott. Report for 1881, app. 9, p. 159-224.
- Account and results of magnetic observations made under the direction of the United States Coast and Geodetic Survey in cooperation with the United States Signal Office, at the United States polar station Ooglaamie, Point Barrow, Alaska; P. Henry Ray, commanding post.** Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 figs., 1 map (illus. 34).
- The geographical distribution and secular variation of the magnetic dip and intensity in the United States.** By Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diags. (illus. 19-24).
- Collection of some magnetic variations off the coasts of California and Mexico, observed by Spanish navigators in the last quarter of the eighteenth century.** Communicated by George Davidson. Report for 1885, app. 7, p. 275-284.
- The magnetic work of the Greely arctic expedition, 1881-1884.** Abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210.
- The value of the "Arcano del mare" with reference to our knowledge of the magnetic declination in the earlier part of the seventeenth century.** By Charles A. Schott. Bull., no. 5, p. 25-28, 2 maps. 1888.
- Secular variation in the position of the agonic line of the North Atlantic and of America, between the epochs 1500 and 1900 A. D.** By Charles A. Schott. Bull., no. 6, p. 29-43, 3 maps. 1888.
- Historical review of the work of the Coast and Geodetic Survey in connection with terrestrial magnetism.** By Charles A. Schott. Bull., no. 7, p. 35-40, 4 maps. 1888.
- The distribution of the magnetic declination in the United States for the epoch 1890. (2d ed.)** By Charles A. Schott. Report for 1889, app. 11, p. 233-402, 3 maps, 1 diag.
- The magnetic observations made on Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730.** Bull., no. 20, 211-214. 1891. (Reprinted in Report for 1890, pt. 2, app. 5, p. 269-273.)
- Results of the observations made at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, between the years 1882 and 1889. Part I. Results of the absolute measures of the direction and intensity of the earth's magnetic force.** Discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241.
- Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, between the years 1882 and 1889. Part II. Results of the differential measures of the magnetic declination.** Discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diags.
- The secular variation and annual change of the magnetic force at stations occupied by E. D. Preston, in connection with the U. S. eclipse expedition to the west coast of Africa, in 1889-90, in charge of D. P. Todd.** Discussion and report by C. A. Schott. Submitted for publication March 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-30.
- Same, abstract.** Bull., no. 23, p. 225-232. (1891.)

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Cont'd.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part III. Results of the differential measures of the horizontal intensity. Discussion and report by Charles A. Schott. Report for 1891, pt. 2, app. 4, p. 41-267, 10 diag.

On the magnetic observations made during Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Submitted for publication as a bulletin, December 12, 1890, and first published February 26, 1891. Discussion by C. A. Schott. Report for 1891, pt. 2, app. 5, p. 269-273.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part IV. Results of the differential measures of the vertical force component, and of the variations of dip and total force. Discussion and report by Charles A. Schott. Report for 1892, pt. 2, app. 7, p. 253-327, 2 diag.

Results of magnetic observations at stations in Alaska and in the northwest territory of the Dominion of Canada. Observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, in the years 1889, 1890, and 1891. Discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.

Distribution of the magnetic declination in Alaska and adjacent waters for the year 1895, and construction of an isogonic chart for the same epoch. By C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.

Same, abstract. Bull., no. 34, p. 127-134. (1895.)

The secular variation in direction and intensity of the earth's magnetic force in the United States and in some adjacent foreign countries. By Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag.

The direction and intensity of the earth's magnetic force at San Francisco, Cal. By C. A. Schott. Bull., no. 33, p. 121-126. 1895.

Distribution of the magnetic declination in the United States for the epoch January 1, 1900. 3d ed. By Charles A. Schott. Report for 1896, app. 1, p. 147-235, 3 illus.

Distribution of the magnetic dip and the magnetic intensity in the United States for the epoch January 1, 1900. (2d ed.) By Charles A. Schott. Report for 1897, app. 1, p. 159-196, 3 maps.

Results of magnetic observations made in connection with the Greenland expedition of 1896, under charge of A. E. Burton. By G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag.

California, Bay of San Francisco. Magnetic ranges for determining the deviation of the compass, with short explanations of how to find the deviation and error of the compass. Arranged and compiled by J. C. Gilmore. Special publication no. 1. 7 pp., 5 pls., 1 map. 1898.

General report upon the magnetic survey of North Carolina, with a brief historical sketch of the fundamental phenomena of the earth's magnetism. By James B. Baylor and Daniel L. Hazard, under the direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pls., 2 maps.

The magnetic work of the United States Coast and Geodetic Survey. By L. A. Bauer. Report for 1899, app. 10, p. 939-952.

Magnetic survey of North Carolina. Values of the magnetic declination at the county seats from 1750 to 1910. By D. L. Hazard. Bull., no. 41, p. 1-12. 1901.

The magnetic observatories of the United States Coast and Geodetic Survey in operation on July 1, 1902. By L. A. Bauer and J. A. Fleming. Report for 1902, app. 5, p. 301-331, 8 views, 3 maps and sketches, 5 diag.

Magnetic dip and intensity observations, January, 1897, to June 30, 1902. By D. L. Hazard. With preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1902, and June 30, 1903. By L. A. Bauer. Report for 1903, app. 5, p. 931-1004.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Cont'd.

- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1903, and June 30, 1904. By L. A. Bauer. Report for 1904, app. 3, p. 207-255, 2 illus.
- Same between July 1, 1904, and June 30, 1905. By L. A. Bauer. Report for 1905, app. 3, p. 105-192.
- Same between July 1, 1905, and June 30, 1906. By L. A. Bauer. Report for 1906, app. 3, p. 105-210, 1 illus.
- Distribution of the magnetic declination in the United States for January 1, 1905. By L. A. Bauer. Report for 1906, app. 4, p. 211-226, 1 map.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1906, and June 30, 1907. By R. L. Faris. Report for 1907, app. 5, p. 157-230.
- Same between July 1, 1907, and June 30, 1908. By R. L. Faris. Report for 1908, app. 3, p. 69-165.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Cheltenham, Md., 1901-1904. By D. L. Hazard. 206 pp., 56 illus. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 110 pp., 29 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 93 pp., 14 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. (In press.)
- Results of observations made at the Coast and Geodetic Survey magnetic observatory near Honolulu, Hawaii, 1902-1904. By D. L. Hazard. 180 pp., 1 map, 5 illus., 47 figs. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 112 pp., 32 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 95 pp., 11 figs. 1911.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Vieques, P. R., 1903-4. By D. L. Hazard. 70 pp., 1 illus., 1 fig. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 110 pp., 26 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 98 pp., 12 figs. 1911.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Sitka, Alaska, 1902-1904. By D. L. Hazard. 129 pp., 1 map, 2 illus., 49 figs. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 115 pp., 36 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 94 pp., 23 figs. 1911.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Baldwin, Kans., 1901-1904. By D. L. Hazard. 138 pp. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 107 pp., 26 figs. 1910.
- Same, 1907-1909. By D. L. Hazard. 114 pp., 15 figs. 1911.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1908, and June 30, 1909. By R. L. Faris. Report for 1909, app. 3, p. 75-149.
- Same, between July 1, 1909, and June 30, 1910. By R. L. Faris. Report for 1910, app. 3, p. 73-141.
- Distribution of the magnetic declination in Alaska and adjacent regions for 1910. By R. L. Faris. Report for 1909, app. 4, p. 151-179, 4 figs., 4 text figs., 1 map in pocket.
- Principal facts of the earth's magnetism, and methods of determining the true meridian and the magnetic declination. (Reprinted from United States magnetic declination tables for 1902.) 99 pp., 1 map, 9 illus., 18 figs. 1909.
- Directions for magnetic measurements. By D. L. Hazard. 131 pp., 10 text figs. 1911.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1910, and June 30, 1911. By R. L. Faris. Report for 1911, app. 3, p. 77-153.
- Distribution of the magnetic declination in the United States for January 1, 1910, with isogonic chart and secular change tables. By R. L. Faris. Special publication no. 9. 14 pp., 1 map. 1911.

COAST AND GEODETIC SURVEY—Continued.

CHART CONSTRUCTION.

- A quincuncial projection of the sphere.** By C. S. Peirce. Report for 1877, app. 15, p. 191, 192, 1 map.
- A treatise on projections.** By Thomas Craig. Part I. Mathematical theory of projections. Part II. Construction of projections. 242 pp., 65 figs. 1882.
- Notes on an original manuscript chart of Bering's expedition of 1725-1730, and on an original manuscript chart of his second expedition; together with a summary of a journal of the first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version.** By William Healey Dall. Report for 1890, app. 19, p. 759-774, 2 maps.
- Notes on an early chart of Long Island Sound and its approaches.** By Charles Hervey Townshend. Report for 1890, app. 20, p. 775-777, 1 map.
- Tables for a polyconic projection of maps, based upon Clarke's reference spheroid of 1866.** 3d ed. [Replaces app. 6, Report for 1884 and Special publication no. 5.] 189 pp., 1 chart. 1910.
- Notes relative to the use of charts issued by the United States Coast and Geodetic Survey.** By D. B. Wainwright. Special publication no. 6. 23 pp., 1 fig., 1 pl., 6 diag. 1900.

ALLIED SUBJECTS.

- Report on the Nicaragua route for an interoceanic ship-canal, with a review of other proposed routes; made by Maximilian Von Sonnenstern to the minister of public works of Nicaragua.** Translated for the U. S. Coast Survey. 22 pp., 1 map. 1874.
- A new system of binary arithmetic.** By Benjamin Peirce. Report for 1876, app. 6, p. 81, 82.
- Hypsometric formula based upon thermodynamic principles.** By Chas. A. Schott. Report for 1876, app. 19, p. 388-390.^a
- A statement concerning the relation of the lawful standards of measure of the United States to those of Great Britain and France.** By J. E. Hilgard. Report for 1876, app. 22, p. 402-406.
- Report on the blue clay of the Mississippi River.** By George Little. Report for 1880, app. 12, p. 145-171, sketch 48.
- On the length of a nautical mile.** By J. E. Hilgard. Report for 1881, app. 12, p. 354, 356.
- General properties of the equations of steady motion.** By Thos. Craig. 26 pp. 1881.
- Historical sketch of the U. S. Coast and Geodetic Survey.** 8 pp. 1884.
- A plea for light on St. George's bank.** By Henry Mitchell. Report for 1885, app. 11, p. 483-485.
- An examination of some of the early voyages of discovery and exploration on the Northwest coast of America from 1539 to 1603.** By George Davidson. Report for 1886, app. 7, p. 155-253, 1 map (illus. 18).
- Resources of and developments in Alaska.** By George Davidson. Bull., no. 4, p. 13-24. 1888.
- Verification of weights and measures.** By O. H. Tittman. Bull., no. 15, p. 157, 158, 1 diag. 1889.
- The relation between the metric standards of length of the U. S. Coast and Geodetic Survey and the U. S. Lake Survey.** By C. A. Schott and O. H. Tittmann. Bull., no. 17, p. 165-173. 1889.
- Report in relation to a portion of boundary line in dispute between the States of Maryland and Virginia.** By Henry L. Whiting. Report for 1890, app. 11, p. 621-623.
- On an approximate method for computing probable error.** By Chas. H. Kummell. Report for 1890, app. 13, p. 685-687.
- The determination, by the method of least squares, of the relation between two variables, connected by the equation $Y=AX+B$, both variables being liable to errors of observation.** By Mansfield Merriman, Ph. D. Report for 1890, app. 13, p. 687-690.

COAST AND GEODETIC SURVEY—ALLIED SUBJECTS—Continued.

On the relation of the yard to the meter. By O. H. Tittmann. Report for 1890, app. 16, p. 715-720. [This paper is a second edition of Bulletin 9, revised by the author, with statement of later comparisons, confirming his results.]

On the least square adjustment of weighings. A report prepared by direction of O. H. Tittmann. By John F. Hayford. Report for 1892, app. 10, p. 515-527.

State laws authorizing officers of the U. S. Coast and Geodetic Survey to enter upon lands within State limits for the purposes of the Survey. Report for 1893, app. 1, p. 1-18.

Fundamental standards of length and mass. Report for 1893, pt. 2, app. 6, p. 165-172. [This paper was first published as Bulletin 26, and was republished to give it a more permanent form. Appended to it will be found a third edition of the tables for converting customary and metric weights and measures.]

Units of electrical measure. Report for 1893, pt. 2, app. 7, p. 173-176.

Part I. A historical account of the boundary line between the States of Pennsylvania and Delaware. Part II. Detailed account of work on the Pennsylvania and Delaware boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig., 3 maps, 2 facsimiles.

On the preparation and arrangement of the exhibit of the U. S. Coast and Geodetic Survey at the World's Columbian Exposition. By D. B. Wainwright. Report for 1893, app. 10, p. 425-439.

Units of electrical measure. Approved for publication December 27, 1893. Bull., no. 30, p. 99-104. 1894.

Legal units of electrical measure in the United States. Approved August 12, 1894. Bull., no. 31, p. 105-108. 1894.

General statement of the administration and work of the Coast and Geodetic Survey, with historical sketch from 1807 to 1898. Extract from report of Superintendent for the fiscal year 1897-98. By H. S. Pritchett. p. 21-28, 1 sketch. 1899.

Methods and results of the U. S. Coast and Geodetic Survey. [Leaflets printed for distribution at the Pan-American Exposition, Buffalo, N. Y.] Spanish edition. Issued separately. 1901.

Table for converting customary and metric weights and measures. 4 pp. 1900.

List and catalogue of the publications issued by the U. S. Coast and Geodetic Survey, 1816-1902. Reprint, with Supplement, 1903-1908. By E. L. Burchard and R. M. Brown. 237, 44 pp. 1908.

Same. Supplement to August, 1903, inclusive. 1903.

General instructions for the field work of the Coast and Geodetic Survey. 127 pp. 1908.

Coast and Geodetic Survey in Alaska. 8 pp. 1909.

The work of the Coast and Geodetic Survey. 2d ed. 47 pp., 5 illus., 1 diag. 1909.

BUREAU OF CORPORATIONS.

Annual Report of the Commissioner of Corporations for 1910. 7 pp. 1911. [There are also on hand a limited supply of each of the annual reports of the Commissioner from 1904 to 1909, inclusive.]

Report of the Commissioner of Corporations on the beef industry. Mar. 8, 1905. xxxvi+315 pp., 15 diags. 1905.

Report of the Commissioner of Corporations on the transportation of petroleum. May 2, 1906. xxvii+512 pp., 40 maps and diags. 1906.

Statement of the Commissioner of Corporations in answer to the allegations of the Standard Oil Company concerning its conviction at Chicago for accepting concessions on shipments over the Chicago and Alton Railroad. A discussion of the allegations in the pamphlet entitled "From the directors of the Standard Oil Company to its employees and stockholders," Dec. 30, 1907. 11 pp. 1907.

Report of the Commissioner of Corporations on the petroleum industry. Part I. Position of the Standard Oil Company in the petroleum industry. May 20, 1907. xxi+396 pp., 8 maps. 1907.

BUREAU OF CORPORATIONS—Continued.

- Report of the Commissioner of Corporations on the petroleum industry. Part II. Prices and profits. Aug. 5, 1907. xlv+965 pp., 3 maps, 71 diag. 1907.
- Report of the Commissioner of Corporations on cotton exchanges. Part I. Methods of establishing grade differences for future contracts. May 4, 1908. xxi+369 pp., 11 charts. 1908. [Also Summary.]
- Same, Part II. Classification of cotton. Part III. Range of grades deliverable on contracts. May 29, 1908. xvi+217 pp., 1 illus. 1908. [Also Summary.]
- Same, Part IV. Effect of future contracts on prices of cotton. Part V. Influence of producers' organizations on prices of cotton. Dec. 6, 1909. xxli+362 pp., 24 charts and diag. 1909. [Also Summary.]
- Report of the Commissioner of Corporations on the tobacco industry. Part I. Position of the tobacco combination in the industry. Feb. 25, 1909. xxlii+489 pp. 1909.
- Same, Part II. Capitalization, investment, and earnings. Sept. 25, 1911. xxi+343 pp. 1911.
- Taxation of corporations. Part I. New England. Report on the system of taxing manufacturing, mercantile, transportation, and transmission corporations in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. May 17, 1909. xiv+156 pp. 1909.
- Same, Part II. Middle Atlantic States [New York, New Jersey, Pennsylvania, Delaware, Maryland, and in the District of Columbia]. June 6, 1910. xiv+115 pp. 1910.
- Same, Part III. Eastern Central States [Ohio, Indiana, Illinois, Michigan, and Wisconsin.] July 31, 1911. x+109 pp. 1911.
- Report of the Commissioner of Corporations on transportation by water in the United States. Part I. General conditions of transportation by water. July 12, 1909. xviii+614 pp., 1 map. 1909.
- Same, Part II. Water-borne traffic. July 19, 1909. xxiv+402 pp., 5 maps. 1909.
- Same, Part III. Water terminals. Sept. 26, 1910. xxli+436 pp., 18 charts and diag. 1910.
- Summary of report of the Commissioner of Corporations on the lumber industry. Part I. Standing timber. Feb. 13, 1911. 38 pp., 1 chart. 1911. [Full report in press.]
- Report of the Commissioner of Corporations on the steel industry. Part I. Organization, investment, profits, and position of United States Steel Corporation. July 1, 1911. xxiv+422 pp. 1911. [Also Summary.]
- Same, Part II. Cost of production—Preliminary report. (In press.)
- Report of the Commissioner of Corporations on water-power conditions in the United States. Part I. Growth and development of the power demand in the United States and physical conditions and economic aspects of water power. Part II. Concentration of ownership and control. [In press.]

BUREAU OF FISHERIES.

The publications of the Bureau of Fisheries are now issued under a plan somewhat different from that formerly followed.

Bound volumes are no longer distributed. The Annual Report now consists of only a brief administrative report of the Commissioner, in pamphlet form. The papers formerly published as appendices to the report of the Commissioner, with it constituting the Annual Report volume, are now issued as small documents independent of any other publication. The papers composing the Bulletin, while still forming an annual volume with continuous pagination, are to be had only as separates, for which, however, there will be issued a general title-page, table of contents, and index at the end of each year.

BUREAU OF FISHERIES—Continued.

In the following pages are listed, by serial numbers, all of the pamphlets now available.

Doe. No.

142. Notes on the fishes from the lowlands of Georgia, with a description of a new species (*Opsopoeodus bollmani*). By Charles H. Gilbert. Bulletin, vol. viii, 1888, p. 225-229. 1891.
214. Report upon the European methods of oyster-culture. By Bashford Dean. Bulletin, vol. xi, 1891, p. 357-406, 2 text fig., pl. lxxv-lxxxviii. 1893.
269. Recent experiments in sturgeon hatching on the Delaware River. By Bashford Dean. Bulletin, vol. xiii, 1893, p. 335-339, 1 text fig. 1894.
293. Notes on a reconnaissance of the fisheries of the Pacific coast of the United States in 1894. By Hugh M. Smith. Bulletin, vol. xiv, 1894, p. 223-288. 1894.
303. The fishes of the Neuse River Basin. By Barton W. Evermann and Ulysses O. Cox. Bulletin, vol. xv, 1895, p. 303-310. 1896.
309. A review of the history and results of the attempt to acclimatize fish and other water animals in the Pacific States. By Hugh M. Smith. Bulletin, vol. xv, 1895, p. 379-472, pl. 73-83. 1896.
312. Report upon ichthyological investigations in western Minnesota and eastern North Dakota. By Albert J. Woolman. Report for 1893, p. 343-373, pl. 19. 1896.
322. Description of a closing tow net for submarine use at all depths. By C. H. Townsend. Report for 1894, p. 279-282, pl. 9, 10. 1896.
323. The whitefishes of North America. By Barton W. Evermann and Hugh M. Smith. Report for 1894, p. 283-324, 1 text fig., pl. 11-28. 1896.
326. The ichthyological collections of the U. S. Fish Commission steamer *Albatross* during the years 1890 and 1891. By Charles H. Gilbert. Report for 1893, p. 393-476, pl. 20-35. 1896.
328. A report upon the fishes of southwestern Minnesota. By Ulysses O. Cox. Report for 1894, p. 605-616. 1896.
333. Notes on Biscayne Bay, Florida, with reference to its adaptability as the site of a marine hatching and experiment station. By Hugh M. Smith. Report for 1895, p. 169-191. 1896.
338. Report of the representatives of the U. S. Fish Commission at the Cotton States and International Exposition at Atlanta, Ga., in 1895. By W. de C. Ravenel. Report for 1896, p. 147-167, 3 text fig., pl. 11-21. 1897.
339. Notes on the extension of the recorded range of certain fishes of the United States coast. By Hugh M. Smith and William C. Kendall. Report for 1896, p. 169-176. 1897.
340. Notes on the food of four species of the cod family. By William C. Kendall. Report for 1896, p. 177-186. 1897.
343. Report of a survey of the oyster regions of St. Vincent Sound, Apalachicola Bay, and St. George Sound, Florida. By Franklin Swift. Report for 1896, p. 187-221, pl. 21. 1897.
346. Artificial propagation of the Atlantic salmon, rainbow trout, and brook trout. Manual of Fish Culture, p. 17-90, 14 text fig., pl. 11-29. 1900.
347. Artificial propagation of the black bass, crappies, and rock bass. Manual of Fish Culture, p. 147-163, 2 text fig., pl. 47-50. 1900.
349. Oysters and methods of oyster culture, with notes on clam culture. By H. F. Moore. Manual of Fish Culture, p. 263-340, 6 text fig., pl. i-xviii. 1900.
355. Report of observations made on board the U. S. Fish Commission steamer *Albatross* during the year ending June 30, 1896. Report for 1896, p. 357-386. 1897.
356. Observations upon the herring and herring fisheries of the northeast coast, with special reference to the vicinity of Passamaquoddy Bay. By H. F. Moore. Report for 1896, p. 387-442, pl. 60-62. 1897.
357. The salmon fishery of Penobscot Bay and River in 1895 and 1896. By Hugh M. Smith. Bulletin, vol. xvii, 1897, p. 113-124, pl. 4 and 5. 1898.
359. Notes on the halibut fishery of the northwest coast in 1896. By A. B. Alexander. Bulletin, vol. xvii, 1897, p. 141-144. 1898.
366. The importance of extended scientific investigation. By H. C. Bumpus. Bulletin, vol. xvii, 1897, p. 177-180. 1898.

BUREAU OF FISHERIES—Continued.

Doc. No.

367. The utility of a biological station on the Florida coast in its relations to the commercial fisheries. By S. E. Meek. Bulletin, vol. xvii, 1897, p. 181-183. 1898.
376. The Hudson River as a salmon stream. By A. Nelson Cheney. Bulletin, vol. xvii, 1897, p. 247-251. 1898.
377. A plea for the development and protection of Florida fish and fisheries. By James A. Henshall. Bulletin, vol. xvii, 1897, p. 253-255. 1898.
379. The restricted inland range of shad due to artificial obstructions, and its effect upon natural reproduction. By Charles H. Stevenson. Bulletin, vol. xvii, 1897, p. 265-271. 1898.
393. Possibilities for an increased development of Florida's fishery resources. By John N. Cobb. Bulletin, vol. xvii, 1897, p. 349-351. 1898.
399. Report on mackerel investigations in 1897. By J. Percy Moore. Report for 1898, p. 1-22. 1899.
400. Reports on fishes obtained by the steamer *Albatross* in the vicinity of Santa Catalina Island and Monterey Bay. By Charles H. Gilbert. Report for 1898, p. 23-29, pl. 1 and 2. 1899.
401. Notes on the extent and condition of the alewife fisheries of the United States in 1896. By Hugh M. Smith. Report for 1898, p. 31-43. 1899.
403. The shad fisheries of the Atlantic coast of the United States. By Charles H. Stevenson. Report for 1898, p. 101-269. 1899.
404. List of fishes collected at the Revillagigedo Archipelago and neighboring islands. By David Starr Jordan and Richard Crittenden McGregor. Report for 1898, p. 273-284, pl. 4-7. 1899.
405. Report on investigations by the U. S. Fish Commission in Mississippi, Louisiana, and Texas in 1897. By Barton W. Evermann. Report for 1898, p. 285-310, pl. 8-36. 1899.
407. Report upon exhibit of the U. S. Fish Commission at the Tennessee Centennial Exposition in 1897. By W. de C. Ravenel. Report for 1898, p. 329-339, pl. 37. 1899.
409. List of fishes known to inhabit the waters of the District of Columbia and vicinity. By Hugh M. Smith and Barton A. Bean. Bulletin, vol. xviii, 1898, p. 179-187. 1899.
410. Notes on a collection of tide-pool fishes from Kadiak Island in Alaska. By Cloudsley Rutter. Bulletin, vol. xviii, 1898, p. 189-192. 1899.
411. The southern spring mackerel fishery of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 193-271. 1899.
412. Notice of a filefish new to the fauna of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 273-278, pl. 64. 1899.
415. The peripheral nervous system of the bony fishes. By C. Judson Herrick. Bulletin, vol. xviii, 1898, p. 315-320, 1 text fig. 1899.
416. The reappearance of the tilefish. By Hermon C. Bumpus. Bulletin, vol. xviii, 1898, p. 321-333. 1899.
419. Check list of the fishes of Florida. By Barton W. Evermann and William C. Kendall. Report for 1899, p. 35-103. 1899.
422. An inquiry into the feasibility of introducing useful marine animals into the waters of Great Salt Lake. By H. F. Moore. Report for 1899, p. 229-250, pl. 7. 1899.
423. A review of the fisheries in the contiguous waters of the State of Washington and British Columbia. By Richard Rathbun. Report for 1899, p. 251-350, pl. 8-16. 1899.
425. Notes on the tide-pool fishes of California, with a description of four new species. By Arthur White Greeley. Bulletin, vol. xix, 1899, p. 7-20, 5 text fig. 1899.
426. The synaptas of the New England coast. By Hubert Lyman Clark. Bulletin, vol. xix, 1899, p. 21-31, pl. 10 and 11. 1899.
427. Descriptions of new genera and species of fishes from Porto Rico. By Barton Warren Evermann and Millard Caleb Marsh. Report for 1899, p. 351-362. 1899.
428. Descriptions of two new species of darters from Lake Maxinkuckee, Indiana. By Barton Warren Evermann. Report for 1899, p. 363-367. 1900.

BUREAU OF FISHERIES—Continued.

Doc. No.

429. The sturgeon fishery of Delaware River and Bay. By John N. Cobb. Report for 1899, p. 369-380, 2 text fig., pl. 18-21. 1900.
433. Descriptions of new species of fishes from the Hawaiian Islands belonging to the families of Labridæ and Scaridæ. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 45-65, 22 text fig. 1900.
434. Rotatoria of the United States, with especial reference to those of the Great Lakes. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 67-104, pl. 14-22. 1901.
435. A report of work on the Protozoa of Lake Erie, with especial reference to the laws of their movements. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 105-114. 1901.
436. Notes on a collection of fishes from the rivers of Mexico, with description of 20 new species. By David Starr Jordan and John O. Snyder. Bulletin, vol. xix, 1899, p. 115-147, 22 text fig. 1900.
438. Some chemical changes in the developing fish egg. By P. A. Levene. Bulletin, vol. xix, 1899, p. 153-155. 1900.
439. The free-swimming copepods of the Woods Hole region. By William Morton Wheeler. Bulletin, vol. xix, 1899, p. 157-192, 30 text fig. 1900.
442. On the movements of certain lobsters liberated at Woods Hole. By Hermon C. Bumpus. Bulletin, vol. xix, 1899, p. 225-230, pl. 27. 1900.
444. Report of a dredging expedition off the southern coast of New England, September, 1899. By Freeland Howe, jr. Bulletin, vol. xix, 1899, p. 237-240. 1900.
446. Fish parasites collected at Woods Hole in 1898. By Edwin Linton. Bulletin, vol. xix, 1899, p. 267-304, pl. 33-43. 1900.
447. Biological notes, No. 1. Bulletin, vol. xix, 1899, p. 305-310. 1900.
448. The skeleton of the black bass. By R. W. Shufeldt. Bulletin, vol. xix, 1899, p. 311-320, 8 text fig., pl. 44. 1900.
449. The chemical composition of the subdermal connective tissue of the ocean sunfish. By Erik H. Green. Bulletin, vol. xix, 1899, p. 321-324. 1900.
452. A method of recording egg development, for use of fish-culturists. By Claudius Wallich. Report for 1900, p. 185-194, pl. 1. 1900.
455. The hydroids of the Woods Hole region. By C. C. Nutting. Bulletin, vol. xix, 1899, p. 325-386, 105 text fig. 1901.
456. Description of 15 new species of fishes from the Hawaiian Islands. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 387-404, 16 text fig. 1901.
457. Parasites of fishes of the Woods Hole region. By Edwin Linton. Bulletin, vol. xix, 1899, p. 405-492, pl. i-xxxiv. 1901.
458. The Mollusca of Porto Rico. By W. H. Dall and C. T. Simpson. Bulletin, vol. xx, 1900, pt. 1, p. 351-524, pl. 53-58. 1901.
459. The Brachyura and Macrura of Porto Rico. By Mary J. Rathbun. Bulletin, vol. xx, 1900, pt. 2, p. 1-127 + *129-137, 26 text fig., pl. 1 and 2. 1901.
460. The Anomuran collections made by the *Fish Hawk* expedition to Porto Rico. By J. E. Benedict. Bulletin, vol. xx, 1900, pt. 2, p. 129-148, pl. 3-6. 1901.
461. The Stomatopoda of Porto Rico. By R. P. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 149-160, 13 text fig. 1901.
462. Report on Porto Rican Isopoda. By H. F. Moore. Bulletin, vol. xx, 1900, pt. 2, p. 161-176, pl. 7-11. 1901.
463. The Cirripedia collected near Porto Rico by the *Fish Hawk* expedition in 1898-99. By M. A. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 177-180. 1901.
464. The polychæteous annelids of Porto Rico. By A. L. Treadwell. Bulletin, vol. xx, 1900, pt. 2, p. 181-210, 78 text fig. 1901.
465. Descriptions of two new leeches from Porto Rico. By J. Percy Moore. Bulletin, vol. xx, 1900, pt. 2, p. 211-222, pl. 12-13. 1901.
466. The nemerteans of Porto Rico. By Wesley R. Coe. Bulletin, vol. xx, 1900, pt. 2, p. 223-229. 1901.
467. The echinoderms of Porto Rico. By H. L. Clark. Bulletin, vol. xx, 1900, pt. 2, p. 231-263, pl. 14-17. 1901.

BUREAU OF FISHERIES—Continued.

Doc. No.

468. The Alcyonaria of Porto Rico. By C. W. Hargitt and C. G. Rogers. Bulletin, vol. xx, 1900, pt. 2, p. 265-287, pl. i-iv. 1901.
469. The stony corals of Porto Rican waters. By T. Wayland Vaughan. Bulletin vol. xx, 1900, pt. 2, p. 289-320, pl. i-xxxviii. 1901.
470. Actinaria from the vicinity of Porto Rico. By J. E. Duerden. Bulletin, vol. xx, 1900, pt. 2, p. 321-374, pl. A and i-xxi. 1901.
471. The sponges collected in Porto Rico in 1899 by the U. S. Fish Commission steamer *Fish Hawk*. By H. V. Wilson. Bulletin, vol. xx, 1900, pt. 2, p. 375-411. 1901.
472. Dredging and other records of the U. S. Fish Commission steamer *Albatross*, with bibliography relative to the work of the vessel. Compiled by C. H. Townsend. Report for 1900, p. 387-562, pl. i-vii. 1901.
474. Biological notes, No. 2, from biological laboratory at Woods Hole. Bulletin, vol. xxi, 1901, p. 27-33. 1901.
475. Description of a new oceanic fish found off southern New England. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 35-36, 1 text fig. 1901.
476. The egg and development of the conger eel. By Carl H. Eigenmann. Bulletin vol. xxi, 1901, p. 37-44, 15 text fig. 1901.
477. Investigations into the history of the young squeteague. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 45-51, 2 text fig. 1901.
478. A new isopod parasitic on the hermit crab. By Millet T. Thompson. Bulletin, vol. xxi, 1901, p. 53-56, pl. 9-10. 1901.
479. The plants of western Lake Erie, with observations on their distribution. By A. J. Pieters. Bulletin, vol. xxi, 1901, p. 57-79, 11 text fig., pl. 11-20. 1901.
480. The leptocephalus of the American eel and other American leptocephali. By C. H. Eigenmann and C. H. Kennedy. Bulletin, vol. xxi, 1901, p. 81-92, 14 text fig. 1901.
483. Notes on the fishes and mollusks of Lake Chautauqua, New York. By B. W. Evermann and E. L. Goldsborough. Report for 1901, p. 169-175. 1902.
484. The foraminifera of Porto Rico. By James M. Flint. Bulletin, vol. xx, pt. 2, 1900, p. 415-416. 1901.
485. Description of a new species of blenny from Japan. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 93-94, 1 text fig. 1902.
486. List of species of fishes known to occur in the Great Lakes or their connecting waters. By Barton Warren Evermann. Bulletin, vol. xxi, 1901, p. 95-96. 1902.
491. Notes on the tagging of four thousand adult cod at Woods Hole, Mass. By Hugh M. Smith. Report for 1901, p. 193-208. 1902.
492. Notes on the silversides of the genus *Menidia* of the east coast of the United States, with descriptions of two new subspecies. By W. C. Kendall. Report for 1901, p. 241-267, 6 text fig. 1902.
493. Note on the Scotch methods of smoking haddocks. By Hugh M. Smith. Report for 1901, p. 269-271. 1902.
494. Notes on the fishes of Lake Ontario. An annotated list of the fishes known to occur in Lake Champlain and its tributary waters. An annotated list of the fishes known to occur in the St. Lawrence River. By B. W. Evermann and W. C. Kendall. Report for 1901, p. 209-240. 1902.
495. A report on fishes collected in Mexico and Central America, with notes and descriptions of five new species. By B. W. Evermann and E. L. Goldsborough. Bulletin, vol. xxi, 1901, p. 137-159, 8 text fig. 1902.
496. The organic constituents of the scales of fish. By E. H. Green and R. W. Tower. Bulletin, vol. xxi, 1901, p. 97-102. 1902.
497. The reactions of copepods to various stimuli and the bearing of this on daily, depth migrations. By G. H. Parker. Bulletin, vol. xxi, 1901, p. 103-123. 1902.
498. The gas in the swim-bladder of fishes. Biliary calculi in the squeteague. By R. W. Tower. Bulletin, vol. xxi, 1901, p. 125-135, pl. xxi. 1902.
499. Description of a new species of shad (*Alosa ohioensis*), with notes on other food-fishes of the Ohio River. By Barton Warren Evermann. Report for 1901, p. 273-288. 1902.

BUREAU OF FISHERIES—Continued.

Doc. No.

500. The reproductive period in the lobster. By Francis H. Herrick. Bulletin, vol. **xxi**, 1901, p. 161-166, 5 text fig. 1902.
501. Notes on five food-fishes of Lake Buhl, Luzon, Philippine Islands. By Hugh M. Smith. Bulletin, vol. **xxi**, 1901, p. 167-171, pl. 22. 1902.
502. Marine protozoa from Woods Hole. By Gary N. Calkins. Bulletin, vol. **xxi**, 1901, p. 413-468, 69 text fig. 1902.
503. Notes on a species of barnacle (*Dichelaspis*) parasitic on the gills of edible crabs. By Robert E. Coker. Bulletin, vol. **xxi**, 1901, p. 399-412, 14 text fig. 1902.
505. Notes on the fisheries of the Pacific coast in 1899. By W. A. Wilcox. Report for 1901, p. 501-574, pl. 28-29. 1902.
507. Statistics of the fisheries of the Mississippi River and tributaries [for 1899]. Report for 1901, p. 659-740. 1902.
508. The Pan-American Exposition. Report of representative of the U. S. Fish Commission. By W. de C. Ravenel. Report for 1901, p. 289-351, pl. 6-20. 1902.
509. Notes on the boats, apparatus, and fishing methods employed by the natives of the South Sea Islands, and the results of fishing trials by the *Albatross*. By A. B. Alexander. Report for 1901, p. 741-829, 36 text fig., pl. 30-37. 1902.
511. Observations on the herring fisheries of England, Scotland, and Holland. By Hugh M. Smith. Bulletin, vol. **xxii**, 1902, p. 1-16, 1 text fig., pl. 1-2. 1903.
514. Hearing and allied senses in fishes. By G. H. Parker. Bulletin, vol. **xxii**, 1902, p. 45-64, pl. 9. 1903.
515. Natural history of the quinnat salmon. A report on investigations in the Sacramento River, 1896-1901. By Cloudsley Rutter. Bulletin, vol. **xxii**, 1902, p. 65-141, 7 text fig., pl. 10-18. 1903.
516. Notes on fishes from streams and lakes of northeastern California not tributary to the Sacramento Basin. By Cloudsley Rutter. Bulletin, vol. **xxii**, 1902, p. 145-148, 2 text fig. 1903.
518. The destruction of trout fry by hydra. By A. E. Beardsley. Bulletin, vol. **xxii**, p. 157-160. 1903.
519. Artificial propagation of the salmon of the Pacific coast. Manual of Fish Culture. p. 1-15, pl. 3-10. 1900.
520. Artificial propagation of the lake trout, grayling, and whitefish. Manual of Fish Culture. p. 91-120, pl. 30-39. 1900.
521. Artificial propagation of the shad and pike perch. Manual of Fish Culture, p. 121-145 and 165-179, 5 text fig., pl. 40-46 and 51-52. 1900.
522. Artificial propagation of marine species of fishes. Manual of Fish Culture, p. 195-233, pl. 54-63. 1904.
523. Descriptions of new genera and species of fishes from the Hawaiian Islands. By D. S. Jordan and B. W. Evermann. Bulletin, vol. **xxii**, 1902, p. 161-208. 1903.
525. Descriptions of a new genus and two new species of fishes from the Hawaiian Islands. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. **xxii**, 1902, p. 209-210. 1903.
526. The freshwater fishes of western Cuba. By Carl H. Eigenmann. Bulletin, vol. **xxii**, 1902, p. 211-236, 17 text fig., pl. 19-21. 1903.
527. The organ of sense of taste in fishes. By C. Judson Herrick. Bulletin, vol. **xxii**, 1902, p. 237-272, 3 text fig. 1903.
529. The plankton algae of Lake Erie, with special reference to the Chlorophyceæ. By Julia W. Snow. Bulletin, vol. **xxii**, 1902, p. 369-394, pl. i-rv. 1903.
530. Description of a new species of darter from Tippecanoe Lake. By William J. Moenkhaus. Bulletin, vol. **xxii**, 1902, p. 395-398. 1903.
531. Notes on some freshwater fishes from Maine. By W. C. Kendall. Bulletin, vol. **xxii**, 1902, p. 353-368, 5 text fig. 1903.
533. A more complete description of *Bacterium truttæ*. By M. C. Marsh. Bulletin, vol. **xxii**, 1902, p. 411-416, pl. i-ii. 1903.

BUREAU OF FISHERIES—Continued.

Doc. No.

534. Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. By Oliver P. Jenkins. Bulletin, vol. xxii, 1902, p. 417-511, 50 text fig., pl. i-iv. 1903.
539. The fisheries and fish trade of Porto Rico. By W. A. Wilcox. Report for 1902, p. 367-395. 1903.
541. Records of dredging and other collecting stations of the U. S. Fish Commission steamer *Albatross* in 1901 and 1902. Report for 1902, p. 397-432. 1903.
542. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer *Albatross*. By Harriet Richardson. Bulletin, vol. xxiii, 1903, pt. iii, p. 47-54. 1903.
544. Notes on a porpoise of the genus *Prodelphinus* from the Hawaiian Islands. By Frederick W. True. Bulletin, vol. xxiii, 1903, pt. 3, p. 41-45, pl. 1-2. 1903.
546. A catalogue of the shore fishes collected by the steamer *Albatross* about the Hawaiian Islands in 1902. By John Otterbein Snyder. Bulletin, vol. xxii, 1902, p. 513-538, 52 text fig., pl. 1-13. 1904.
547. Notes on fishes collected in the Tortugas Archipelago. By David Starr Jordan. Bulletin, vol. xxii, 1902, p. 539-544, pl. 1-2. 1904.
549. Records of the dredging and other collecting and hydrographic stations of the U. S. Fisheries steamer *Albatross* in 1903. By Franklin Swift, compiled by Harry C. Fassett. Report for 1903, p. 123-134. 1904.
550. The echinoderms of the Woods Hole region. By Hubert Lyman Clark. Bulletin, vol. xxii, 1902, p. 545-576, pl. 1-14. 1904.
551. List of fishes dredged by the steamer *Albatross* off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridae. By David Starr Jordan and Edwin Chapin Starks. Bulletin, vol. xxii, 1902, p. 577-630, pl. i-vii. 1904.
555. The commercial fisheries of the interior lakes and rivers of New York and Vermont. By John N. Cobb. Report for 1903, p. 225-246. 1904.
557. A revision of *Malaclemmys*, a genus of turtles. By William Perry Hay. Bulletin, vol. xxiv, 1904, p. 1-20, pl. i-xii. 1904.
558. The medusae of the Woods Hole region. By Charles W. Hargitt. Bulletin, vol. xxiv, 1904, p. 21-79, 30 text fig., pl. i-vii. 1904.
559. The osteology and immediate relations of the tilefish, *Lopholatilus chamaeleonticeps*. By Frederick A. Lucas. Bulletin, vol. xxiv, 1904, p. 81-86, 3 text fig. 1904.
560. The blood vascular system of the tilefish, *Lopholatilus chamaeleonticeps*. By C. F. Silvester. Bulletin, vol. xxiv, 1904, p. 87-114, 15 text fig., pl. i. 1904.
561. The fish parasites of the genus *Argulus* found in the Woods Hole region. By Charles B. Wilson. Bulletin for 1904, p. 115-131, 12 text fig. 1904.
562. The seaweed industries of Japan. The utilization of seaweeds in the United States. By Hugh M. Smith. Bulletin, vol. xxiv, 1904, p. 133-181, 31 text fig., pl. i-v. 1905.
563. The function of the lateral-line organs in fishes. By G. H. Parker. Bulletin, vol. xxiv, 1904, p. 183-207. 1905.
564. Isopods from the Alaska salmon investigation. By Harriet Richardson. Bulletin, vol. xxiv, 1904, p. 209-221, 10 text fig. 1905.
565. List of fishes collected in Boulder County, Colo., with description of a new species of *Leuciscus*. By Chancey Juday. Bulletin, vol. xxiv, 1904, p. 223-227, 1 text fig. 1905.
566. Biological relation of aquatic plants to the substratum. By Raymond H. Pond. Report for 1903, p. 483-526, 6 text fig. 1905.
567. State ichthyology of Massachusetts. By Theodore Gill. Report for 1904, p. 163-188. 1905.
568. The fish fauna of the Tortugas Archipelago. By David Starr Jordan and Joseph C. Thompson. Bulletin, vol. xxiv, 1904, p. 229-256, 6 text fig. 1905.
569. Distribution of sewage in the waters of Narragansett Bay, with especial reference to the contamination of the oyster beds. By Caleb Allen Fuller. Report for 1904, p. 189-238, 2 text cuts. 1905.
570. Statistics of the fisheries of the South Atlantic States, 1902. Report for 1903, p. 343-410. 1905.

BUREAU OF FISHERIES—Continued.

Doc. No.

571. Statistics of the fisheries of the Gulf States, 1902. Report for 1903, p. 411-481. 1905.
572. New starfishes from deep water off California and Alaska. By Walter K. Fisher. Bulletin, vol. xxiv, 1904, p. 291-320. 1905.
574. Notes on the fishes of the streams flowing into San Francisco Bay, California. Critical notes on *Mylocheilus lateralis* and *Leuciscus caurinus*. By John O. Snyder. Report for 1904, p. 327-342, pl. 1. 1905.
576. Note regarding the promotion of fishery trade between the United States and Japan. By Hugh M. Smith. Report for 1904, p. 239-243. 1905.
577. Commercial fisheries of the Hawaiian Islands, 1901. By John N. Cobb. Bulletin, vol. xxiii, 1903, pt. ii, p. 716-765, pl. 102-106. 1905.
578. The gas disease in fishes. By M. C. Marsh and F. P. Gorham. Report for 1904, p. 343-376, pl. i-iii. 1905.
579. A revision of the cave fishes of North America. By Ulysses O. Cox. Report for 1904, p. 377-393, 11 text fig., pl. i-vi. 1905.
582. The deep-sea fishes of the Hawaiian Islands. By Charles Henry Gilbert. Bulletin, vol. xxiii, 1903, pt. ii, p. 575-713, pl. 66-101. 1905.
583. Parasites of fishes of Beaufort, N. C. By Edwin Linton. Bulletin, vol. xxiv, 1904, p. 321-428, pl. i-xxxiv. 1905.
584. Physiological studies of the chinook salmon. By Charles Wilson Greene. Bulletin, vol. xxiv, 1904, p. 429-456, 6 text fig. 1905.
585. The Amphipoda of southern New England. By S. J. Holmes. Bulletin, vol. xxiv, 1904, p. 457-529, 65 text fig., pl. i-xiii. 1905.
586. Hydroids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By C. C. Nutting. Bulletin, vol. xxiii, 1903, pt. iii, p. 931-959, pl. i-xiii. 1905.
587. The Brachyura and Macrura of the Hawaiian Islands. By Mary J. Rathbun. Bulletin, vol. xxiii, 1903, pt. iii, p. 827-930, 79 text fig., pl. i-xxiv. 1905.
588. Schizopods of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. E. Ortmann. Bulletin, vol. xxiii, 1903, pt. iii, p. 961-973. 1905.
589. Nemertean of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By Wesley R. Coe. Bulletin, vol. xxiii, 1903, pt. iii, p. 975-986, 7 text fig., pl. i. 1905.
590. The commercial fisheries of the Hawaiian Islands in 1903. By John N. Cobb. Report for 1904, p. 433-511. 1905.
591. Notes on the food and parasites of some fresh-water fishes from the lakes at Madison, Wis. By W. S. Marshall and N. C. Gilbert. Report for 1904, p. 513-522. 1905.
594. Report of the Commissioner of Fisheries for the year ending June 30, 1905. 46 p. 1905.
596. The physiological effects upon fishes of changes in the density and salinity of water. By F. B. Sumner. Bulletin, vol. xxv, 1905, p. 53-108, 2 text fig. 1906.
597. Opisthobranchiate Mollusca from Monterey Bay, California, and vicinity. By F. M. MacFarland. Bulletin, vol. xxv, 1905, p. 109-151, pl. xviii-xxix. 1906.
598. Hirudinea and Oligochaeta collected in the Great Lakes region. By J. P. Moore. Bulletin, vol. xxv, 1905, p. 153-171, 6 text fig., pl. xxxii. 1906.
599. The starfishes of the Hawaiian Islands. By W. K. Fisher. Bulletin, vol. xxii, 1903, pt. iii, p. 987-1130, 2 text fig., pl. i-xlix. 1906.
600. Medusae of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. G. Mayer. Bulletin, vol. xxiii, 1903, pt. iii, p. 1131-1143, pl. i-iii. 1906.
601. Polychaetous annelids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. I. Treadwell. Bulletin, vol. xxiii, 1903, pt. iii, p. 1145-1181, 81 text fig. 1906.
605. The fishes of Samoa. Description of the species found in the archipelago, with a provisional list of the fishes of Oceania. Bulletin, vol. xxv, 1905, p. 173-455, 111 text fig., pl. xxxiii-lviii. 1906.

BUREAU OF FISHERIES—Continued.

Doc. No.

609. Statistics of the fisheries of the Middle Atlantic States for 1904. 122 p. 1907.
614. List of publications of Bureau of Fisheries available for distribution, Nov. 7, 1911. 23 p. 1911.
619. The effects of some industrial wastes on fishes. By M. C. Marsh. Reprint from Water-Supply and Irrigation Paper No. 192, U. S. Geological Survey. 1907. (Special edition obtained by Bureau of Fisheries for distribution upon request.)
623. Notes on fishes of Hawaii, with descriptions of new species. By David S. Jordan and John O. Snyder. Bulletin, vol. xxvi, 1906, p. 205-218, 4 text fig., pl. xii-xiii. 1907.
624. The fishes of Alaska. By Barton W. Evermann and E. L. Goldsborough. Bulletin, vol. xxvi, 1906, p. 219-360, 144 text fig., pl. xiv-xlii. 1907.
625. The physiology of the digestive tract of elasmobranchs. By M. X. Sullivan. Bulletin, vol. xxvii, 1907, p. 1-27, pl. i. 1907.
631. Fishes of West Virginia. By E. L. Goldsborough and H. Walton Clark. Bulletin, vol. xxvii, 1907, p. 29-39, 1 text fig. 1908.
633. The fishes of the Connecticut Lakes and neighboring waters, with notes on the plankton environment. By W. C. Kendall and E. L. Goldsborough. 77 p., pl. i-xii, text fig. 1-5, 2 charts. 1908.
634. Devils Lake, North Dakota: A study of physical and biological conditions, with a view to the acclimatization of fish. By Thomas E. B. Pope. 22 p. pl. i-iii, 1 map. 1908.
635. The photography of aquatic animals in their natural environment. By Jacob Reighard. Bulletin, vol. xxvii, 1907, p. 41-68, pl. ii-v, 9 text fig. 1908.
636. Relationships of the fish fauna of the lakes of southeastern Oregon. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 69-102, 4 text fig., 1 map. 1908.
637. The fishes of the Sacramento-San Joaquin basin, with a study of their distribution and variation. By Cloudsley Rutter. Bulletin, vol. xxvii, 1907, p. 103-152, 4 text fig., pl. vi. 1908.
638. The fishes of the coastal streams of Oregon and northern California. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 153-189, text fig. 1-5, 1 map. 1908.
640. Fishes from islands of the Philippine Archipelago. By David Starr Jordan and Robert E. Richardson. Bulletin, vol. xxvii, 1907, p. 233-237, text fig. 1-12. 1908.
642. Report of the Commissioner of Fisheries for the year ended June 30, 1908. 23 p. 1908.
645. The fisheries of Alaska in 1908. By M. C. Marsh and J. N. Cobb. 78 p. 1909.
646. International regulations of the fisheries on the high seas. By O. T. Olsen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 77-90. 1910.
647. International regulations of the fisheries on the high seas. By Charles E. Fryer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 91-102. 1910.
648. International regulations of the fisheries on the high seas. By Charles Hugh Stevenson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 103-180, 3 text fig. 1910.
649. Work of the International Fisheries Commission. By David Starr Jordan. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 181-188. 1910.
650. Some reasons for failure of fish-protective legislation, and some suggested remedies. By Oregon Milton Dennis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 187-192. 1910.
651. National aspects of angling and the protection of game fishes. By H. Wheeler Perce. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 193-198. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

652. Sport fishing in California and Florida. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 199-207, pl. i-vi. 1910.
653. Lobsters and the lobster problem in Massachusetts. By George W. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 209-217. 1910.
654. A method of lobster culture. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 219-240, 7 text fig., pl. vii-xi. 1910.
655. Sea mussels and dogfish as food. By Irving A. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 241-257. 1910.
656. On the wholesomeness of oysters as food. By Henry C. Rowe. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 259-267. 1910.
657. Effects of menhaden fishing upon the supply of menhaden and of the fishes that prey upon them. By Walter E. Hathaway. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 269-278. 1910.
658. Effects of the menhaden and mackerel fisheries upon the fish supply. By W. C. Kendall. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 279-293. 1910.
659. An improved and practical method of packing fish for transportation. By A. Sjöling. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 295-301. 1910.
660. A process for preserving the pearl-oyster fisheries and for increasing the value of the yield of pearls. By John I. Solomon. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 303-313, 3 text fig. 1910.
661. Fur seals and the seal fisheries. By Charles H. Townsend. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 315-322. 1910.
662. Economic conditions of the fisheries in Italy. By Guido Rossati. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 323-332. 1910.
663. The fisheries and the guano industry of Peru. By Robert E. Coker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 333-365, pl. xii-xvii. 1910.
664. The fisheries of China. By W. W. Yen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 367-373. 1910.
665. The fisheries of Japan considered from a geographical standpoint. By T. Kitahara. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 375-379. 1910.
667. Commercial sponges and the sponge fisheries. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 399-511, 4 text fig., pl. lxviii-lxxvi. 1910.
668. The abuse of the scaphander in the sponge fisheries. By Ch. Flegel. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 513-543. 1910.
669. A practical method of sponge culture. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 545-585, 7 text fig., pl. lxvii-lxxvi. 1910.
670. Sponge culture. By Jules Cotte. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 587-614. 1910.
671. Experiments in the artificial propagation of fresh-water mussels. By George Lefevre and W. C. Curtis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 615-628. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

672. A plan for promoting the whitefish production of the Great Lakes.^a By S. W. Downing. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 627-633. 1910.
673. A plan for promoting the whitefish production of the Great Lakes.^a By Frank N. Clark. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 635-642. 1910.
674. A plan for promoting the whitefish production of the Great Lakes.^a By Paul Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 643-684, 5 text fig. 1910.
675. Fish-cultural practices in the Bureau of Fisheries. By John W. Titcomb. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 697-757, 13 text fig., pl. lxxvii-lxxxix. 1910.
676. A new principle of aquiculture and transportation of live fishes. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 759-780, 1 text fig., pl. xc-c. 1910.
677. A method of cultivating rainbow trout and other Salmonidæ. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 781-787, 3 text fig. 1910.
678. Possible expansion of shad-hatchery work. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 789-793. 1910.
679. The comparative value of foods for rainbow trout and other salmonoids. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 795-798. 1910.
680. Apparatus and methods used at the marine fish hatchery at Flödevig, Norway. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 799-809, 8 text fig., pl. ci. 1910.
681. The utility of sea-fish hatching. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 811-816. 1910.
682. Propagation and protection of the Rhine salmon. By P. P. C. Hoek. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 817-829, 2 text fig. 1910.
683. Fishes in their relation to the mosquito problem. By William P. Seal. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 831-838. 1910.
684. Foods for young salmonoid fishes. By Charles G. Atkins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 839-851. 1910.
685. Fresh-water shrimp, a natural fish food. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 853-858. 1910.
686. The cultivation of the turbot. By R. Anthony. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 859-870, 2 text fig., pl. cii-ciii. 1910.
687. The treatment of fish-cultural waters for the removal of algæ. By M. C. Marsh and R. K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 871-890, 2 text fig. 1910.

^a Documents 672, 673, and 674, with discussion occupying p. 685-695, are issued under one cover.

BUREAU OF FISHERIES—Continued.

Doc. No.

688. Notes on the dissolved content of water in its effect upon fishes. By M. C. Marsh. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 891-906. 1910.
689. Causes of diseases in young salmonoids. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 907-916. 1910.
690. Radical prevention of *Costia necatrix* in salmonoid fry. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 917-923. 1910.
691. Treatment of fungus on fishes in captivity. By L. B. Spencer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 929-932. 1910.
692. Methods of combating fungus diseases on fishes in captivity. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 933-936. 1910.
693. A new method of combating fungus on fishes in captivity. By Paul Zirzow. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 937-940. 1910.
694. Experience in abating disease among brook trout. By Albert Rosenberg. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 941-945. 1910.
695. American fishes in Italy. By G. Besana. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 947-954. 1910.
696. Acclimatization of American fishes in Argentina. By E. A. Tullian. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 955-965. 1910.
697. Introduction of American fishes into New Zealand. By L. F. Ayson. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 967-975. 1910.
698. Naturalization of American fishes in Austrian waters. By Franz von Pirko. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 977-982. 1910.
699. Causes of degeneration of American trouts in Austria. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 983-989. 1910.
700. New and improved devices for fish culturists. By Alfred E. Fuller. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 991-1000, pl. civ-cvi. 1910.
701. A device for counting young fish. By Robert K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1001-1004, 1 text fig. 1910.
702. A method of transporting live fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1005-1007. 1910.
703. A method of measuring fish eggs. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1009-1014, 2 text fig. 1910.
704. An improvement in hatching and rearing boxes; with notes on continuous feeding of the fry of Salmonidæ. By G. E. Simms. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1015-1023, 3 text fig. 1910.
705. Devices for the use of fish hatcheries and aquaria. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1025-1035, 6 text fig. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

706. New methods of transporting eggs and fish. By W. S. Kincald. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1087-1089. 1910.
707. Fishways. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1041-1057, 21 text fig. 1910.
708. A plea for observation of habits of fishes and against undue generalization. By Theodore Gill. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1069-1069. 1910.
709. The habits and life history of the toadfish (*Opsanus tau*). By E. W. Gudger. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1071-1110, 1 text fig., pl. cvii-cxiii. 1910.
710. Methods of studying the habits of fishes and recording their life histories; with an account of the breeding habits of the horned dace. By Jacob Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1111-1136, 5 text fig., pl. cxiv-cxx. 1910.
711. A method of studying the life history of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1137-1141. 1910.
712. Effects of changes in the density of water upon the blood of fishes. By G. G. Scott. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1143-1150. 1910.
713. Internal parasites of the Sebago salmon. By Henry B. Ward. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1151-1194, pl. cxxi. 1910.
714. Notes on the flesh parasites of marine food fishes. By Edwin Linton. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1195-1209. 1910.
715. Structure and functions of the ear of the squeteague. By G. H. Parker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1211-1224, pl. cxxii. 1910.
716. An intensive study of the fauna and flora of a restricted area of sea bottom. By Francis B. Sumner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1225-1263, 27 text fig., 2 charts. 1910.
717. Development of sponges from tissue cells outside of the body of the parent. By H. V. Wilson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1265-1271. 1910.
718. Gases dissolved in the waters of Wisconsin lakes. By E. A. Birge. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1273-1294, 20 text fig. 1910.
719. Volumetric studies of the food and feeding of oysters. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1295-1308, 6 text fig., pl. cxxv. 1910.
720. A plan for an educational exhibit of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1309-1314. 1910.
721. A plan for an educational exhibit of fishes. By Roy W. Miner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1315-1346, 9 text fig., pl. cxxvi-cxli. 1910.
722. Outline for an educational exhibit of fishes. By Frederic A. Lucas. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1341-1351. 1910.
723. A method of preparing fish for museum and exhibition purposes. By Dwight Franklin. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1353-1355, pl. cxlii. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

724. New methods of preparing fishes for museum exhibit. By J. D. Figgins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1357-1363. 1910.
725. The U. S. Bureau of Fisheries: Its establishment, functions, organization, resources, operations, and achievements. By Hugh M. Smith. Second edition. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, 1908, p. 1365-1411, pl. cxliii-clvi. 1910.
726. Organization and sessional business of the Fourth International Fishery Congress, Washington, U. S. A., 1908. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, p. 1-76. 1910.
728. Distribution of fish and fish eggs during the fiscal year 1909. 103 p. 1910.
729. Condition and extent of the oyster beds of James River, Virginia. By H. F. Moore. 83 p., 2 charts. 1910.
730. The fisheries of Alaska in 1909. By M. C. Marsh and John N. Cobb. 58 p. 1910.
731. Oyster-culture experiments and investigations in Louisiana. By H. F. Moore. 54 p., 8 pl. 1910.
732. Laws and regulations relative to fur-seal fishing. 7 p. 1910.
733. American catfishes: Habits, culture, and commercial importance. By W. C. Kendall. 39 p., 10 pl. 1910.
734. Report of the Commissioner of Fisheries, 1910. 40 p. 1910.
735. The fur-seal fisheries of Alaska in 1909. By Walter I. Lembkey. 53 p. 1910.
736. Marine isopods collected in the Philippines by the U. S. fisheries steamer *Albatross* in 1907-8. By Harriet Richardson. 44 p., 39 text fig. 1910.
737. A review of the salmonoid fishes of the Great Lakes, with notes on the whitefishes of other regions. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. xxix, 1909, p. 1-41, pl. i-vii, 23 text fig. 1911.
738. Influence of the eyes, ears, and other allied sense organs on the movements of the dogfish, *Mustelus canis* (Mitchill). By George H. Parker. Bulletin, vol. xxix, 1909, p. 43-57. 1910.
739. Barnacles of Japan and Bering Sea. By Henry A. Pilsbry. Bulletin, vol. xxix, 1909, p. 59-84, 11 text fig., pl. viii-xvii. 1911.
740. Distribution of fish and fish eggs during the fiscal year 1910. 112 p. 1911.
741. Dredging and hydrographic records of the U. S. fisheries steamer *Albatross* during the Philippine expedition, 1907-1910. 97 p. 1910.
742. The food value of sea mussels. By Irving A. Field. Bulletin, vol. xxix, 1909, p. 85-128, 2 text fig., pl. xviii-xxv. 1911.
743. The migration of salmon in the Columbia River. By Charles W. Greene. Bulletin, vol. xxix, 1909, p. 129-148, pl. xxvi-xxvii. 1911.
744. Anatomy and physiology of the wing-shell *Atrina rigida*. By Benjamin H. Grave. Bulletin, vol. xxix, 1909, p. 409-438, 15 text fig., pl. xxviii-L. 1911.
745. Condition and extent of the natural oyster beds of Delaware. By H. F. Moore. 29 p., 1 chart. 1911.
746. The fisheries of Alaska in 1910. 72 p. 1911.
747. Natural history of the American lobster. By Francis H. Herrick. Bulletin, vol. xxix, 1909, p. 149-408, pl. xxviii-xlvi, 42 text figs. 1911.
748. Special investigation of the Alaska fur-seal rookeries, 1910. By Harold Heath. 22 p. 1911.
749. The fur-seal fisheries of Alaska in 1910. By Walter I. Lembkey. 40 p. 1911.
750. Development of sponges from dissociated tissue cells. By H. V. Wilson. Bulletin, vol. xxx, 1910, p. 1-30, pl. i-v. 1911.
751. The salmon fisheries of the Pacific coast. By John N. Cobb. 179 p. 1911.
752. Effects of explosive sounds, such as those produced by motor boats and guns, upon fishes. By G. H. Parker. 9 p. 1911.

BUREAU OF FISHERIES—Continued.

Doc. No.

The mussel fauna of the Kankakee Basin. By Charles B. Wilson and H. Walton Clark. (In press.)

The mussels of the Big Buffalo Fork of White River, Ark. By S. E. Meek and H. Walton Clark. (In press.)

Fishes from Bering Sea and Kamchatka. (In press.)

Studies on the reproduction and artificial propagation of fresh-water mussels. (In press.)

Sound as a directing influence in the movement of fishes. (In press.)

A biological survey and census of the marine fauna and flora of Woods Hole and vicinity. (In press.)

Report of the Commissioner of Fisheries, 1911. (In press.)

BUREAU OF IMMIGRATION AND NATURALIZATION.

Annual report of the Commissioner General of Immigration, 1911. (In press.) [There are also available limited supplies of the annual reports of the Commissioner General for each of the years 1892, 1897, 1899, 1900, 1901, 1902, and 1903.]

Annual report of the Chief of the Division of Naturalization to the Commissioner General of Immigration, 1911. 29 pp. 1911. [Printed also in report of the Commissioner General.]

Annual report of the Chief of the Division of Information to the Commissioner General of Immigration, 1911. 14 pp. 1911. [Printed also in report of the Commissioner General.]

Immigration laws; [and] rules of Nov. 15, 1911. 1st edition. 67 pp. 1912.

Treaty, laws, and regulations governing the admission of Chinese. Edition June 22, 1911. 63 pp. 1911.

Naturalization laws and regulations, Nov. 11, 1911. 29 pp. 1911.

The Bureau also issues monthly, for the use of the press and individuals directly concerned, a statement giving comparative statistics of immigration and the inward and outward passenger movements.

BUREAU OF LABOR.**ANNUAL REPORTS.**

First annual report of the Commissioner of Labor, 1886: Industrial depressions. 496 pp. 1886.

Third annual report of the Commissioner of Labor, 1887: Strikes and lockouts, Jan. 1, 1881, to Dec. 31, 1886. 1172 pp. 1888.

Fourth annual report of the Commissioner of Labor, 1888: Working women in large cities. 631 pp. 1889.

Fifth annual report of the Commissioner of Labor, 1889: Railroad labor. 888 pp. 1890.

Seventh annual report of the Commissioner of Labor, 1891: Cost of production: The textiles and glass (2 vols.). 2048 pp. 1892.

Eighth annual report of the Commissioner of Labor, 1892: Industrial education. 707 pp. 1893.

Fifteenth annual report of the Commissioner of Labor, 1900: A compilation of wages in commercial countries from official sources (2 vols.). 1642 pp. 1900.

Nineteenth annual report of the Commissioner of Labor, 1904: Wages and hours of labor. 976 pp. 1905.

Twentieth annual report of the Commissioner of Labor, 1905: Convict labor. 794 pp. 1906.

Twenty-first annual report of the Commissioner of Labor, 1906: Strikes and lockouts, Jan. 1, 1881, to Dec. 31, 1905. 979 pp. 1907.

Twenty-third annual report of the Commissioner of Labor, 1908: Workmen's insurance and benefit funds in the United States. 810 pp. 1909.

Twenty-fourth annual report of the Commissioner of Labor, 1909: Workmen's insurance and compensation systems in Europe (2 vols.). 2749 pp. 1911.

Twenty-fifth annual report of the Commissioner of Labor, 1910: Industrial education. 822 pp. 1911.

BUREAU OF LABOR—Continued.

SPECIAL REPORTS.

- Index of all reports issued by bureaus of labor statistics in the United States prior to Mar. 1, 1902. 287 pp. 1902.
- Third report of the Commissioner of Labor on Hawaii, 1905. 333 pp. 1906.
- Fourth report of the Commissioner of Labor on Hawaii, 1910. 465 pp. 1911.
[Printed also as Bulletin 94.]
- Investigation of Western Union and Postal Telegraph-Cable companies. 554 pp. 1909.
- Investigation of telephone companies. 340 pp. 1910.
- Report on strike at Bethlehem Steel Works, South Bethlehem, Pa. 136 pp. 1910.
- Laws relating to compensation for industrial accidents in foreign countries. [Part of 24th annual report.] 277 pp. 1909.
- Vocational guidance. [Part of 25th annual report.] (In press.)

BULLETINS.

- No. 11. Workers at gainful occupations at censuses of 1870, 1880, and 1890; Public baths in Europe. 156 pp., 8 pls. July, 1897.
- No. 29. Trusts and industrial combinations; The Yukon and Nome gold regions; Labor day. 252 pp. July, 1900.
- No. 30. Trend of wages from 1891 to 1900; Statistics of cities; Foreign labor laws: Various European countries. 204 pp. September, 1900.
- No. 33. Foreign labor laws: Australasia and Canada; The British conspiracy and protection of property act and its operation. 204 pp. March, 1901.
- No. 34. Labor conditions in Porto Rico; Social economics at the Paris Exposition; The workmen's compensation act of Holland. 186 pp. May, 1901.
- No. 35. Cooperative communities in the United States; The Negro landholder of Georgia. 250 pp., 15 text figs. July, 1901.
- No. 36. Statistics of cities; Statistics of Honolulu, Hawaii. 210 pp. September, 1901.
- No. 38. Labor conditions in Mexico; The Negroes of Cinclare Central Factory and Calumet Plantation, La. 194 pp., 4 pls. January, 1902.
- No. 39. Course of wholesale prices, 1890 to 1901. 314 pp. March, 1902.
- No. 40. Present condition of the hand-working and domestic industries of Germany; Workmen's compensation acts of foreign countries. 154 pp. 1 tab. inset. May, 1902.
- No. 41. Labor conditions in Cuba; Beef prices. 218 pp. July, 1902.
- No. 44. Factory sanitation and labor protection. 202 pp. January, 1903.
- No. 45. Course of wholesale prices, 1890 to 1902. 234 pp., 4 text figs. March, 1903.
- No. 46. Report of anthracite coal strike commission. 247 pp. May, 1903.
- No. 47. Report of the Commissioner of Labor on Hawaii. 298 pp. July, 1903.
- No. 48. Farm colonies of the Salvation Army; The Negroes of Xenia, Ohio: A social study. 154 pp. September, 1903.
- No. 51. Course of wholesale prices from 1890-1903; Union movement among coal-mine workers; Agreements between employers and employees. 296 pp., 4 text figs. March, 1904.
- No. 52. Child labor in the United States. 218 pp. May, 1904.
- No. 53. Wages and cost of living. 266 pp. July, 1904.
- No. 54. The working of the United States Bureau of Labor; Bureaus of statistics of labor in the United States; Bureaus of statistics of labor in foreign countries; The value and influence of labor statistics; Strikes and lockouts in the United States, 1881 to 1900; Wages in the United States and Europe, 1890 to 1903; Cost of living and retail prices in the United States, 1890 to 1903; Wholesale prices in the United States, 1890 to 1903; Housing of the working people in the United States by employers; Public baths in the United States; Trade and technical education in the United States; Hand and machine labor in the United States; Labor legislation in the United States; Labor conditions in Hawaii. 522 pp., 194 pls., 21 text figs. September, 1904.

BUREAU OF LABOR—BULLETINS—Continued.

- No. 57. Course of wholesale prices, 1890 to 1904; Street railway employment in the United States; State cooperative accident insurance fund of Maryland. 332 pp., 4 text figs. March, 1905.
- No. 58. Labor conditions in the Philippines; Labor conditions in Java; The new Russian workmen's compensation act. 299 pp. May, 1905.
- No. 59. Wages and hours of labor in manufacturing industries, 1890 to 1904; Retail prices of food, 1890 to 1904; Laws relating to child labor in European countries. 385 pp., 2 pl. July, 1905.
- No. 63. Course of wholesale prices, 1890 to 1905. 255 pp., 4 text figs. March, 1906.
- No. 64. Conditions of living among the poor; Benefit features of British trade unions. 317 pp. May, 1906.
- No. 69. Wholesale prices, 1890 to 1906. 233 pp., 4 text figs. March, 1907.
- No. 75. Wholesale prices, 1890 to 1907; Industrial hygiene. 374 pp., 4 text figs. March, 1908.
- No. 76. Canadian Industrial Disputes Investigation Act of 1907; What is done for the unemployed in European countries. 380 pp. May, 1908.
- No. 80. Woman and child wage-earners in Great Britain. 194 pp. January, 1909.
- No. 81. Wholesale prices, 1890 to 1908. 275 pp., 4 text figs. March, 1909.
- No. 82. Mortality from consumption in occupations exposing to municipal and general organic dust. 215 pp. May, 1909.
- No. 83. Women's trade-union movement in Great Britain; Cost of living of the working classes in the principal industrial towns of France. 181 pp. July, 1909.
- No. 84. Accidents to railroad employees in New Jersey, 1888 to 1907; The Minnesota iron ranges. 272 pp. September, 1909.
- No. 85. Review of labor legislation of 1908 and 1909; Laws of various States relating to labor, enacted since Jan. 1, 1908. 410 pp. November, 1909.
- No. 86. Canadian Industrial Disputes Investigation Act of 1907; Phosphorus poisoning in the match industry in the United States; List of industrial poisons. 375 pp. January, 1910.
- No. 87. Wholesale prices, 1890 to March, 1910; Wages and hours of labor of union carpenters in the United States and in English-speaking foreign countries. 319 pp., 5 text figs. March, 1910.
- No. 88. Cost of living of families of moderate income in Germany in 1907-8; Trend of wages in Germany, 1898 to 1907; Wages and hours of labor in German woodworking industries in 1906; Wages and hours of labor in Austria, 1906 and 1907. 230 pp. May, 1910.
- No. 89. Child-labor legislation in Europe. 436 pp. July, 1910.
- No. 90. Fatal accidents in coal mining; Recent action relating to employers' liability and workmen's compensation; Essential features of a compensation law—Chicago conference of November, 1910; Summary of foreign workmen's compensation acts; Cost of employers' liability and workmen's compensation insurance. 430 pp. September, 1910.
- No. 91. Working hours of wage-earning women in selected industries in Chicago; Labor laws declared unconstitutional; Old-age and invalidity pension laws of Germany, France, and Australia; Review of labor legislation of 1910; Laws of various States relating to labor enacted since January 1, 1910. 293 pp. November, 1910.
- No. 92. Industrial accidents and loss of earning power—German experience in 1897 and 1907; Workmen's compensation insurance; Laws and bills, 1911; International Association for Labor Legislation; Report of Illinois commission on occupational diseases. 321 pp. January, 1911.
- No. 93. Wholesale prices, 1890 to 1910; Cost of living in American towns [summary of British report]; Hours of labor of factory employees in Austria. 380 pp., 4 text figs. March, 1911.

BUREAU OF LABOR—BULLETINS—Continued.

- No. 94. Fourth report of the Commissioner of Labor on Hawaii, 1910. 476 pp. May, 1911.
- No. 95. Industrial lead poisoning in Europe; White-lead industry in the United States; Deaths from industrial lead poisoning in New York. 368 pp., 1 chart, 6 pls., 2 text figs. July, 1911.
- No. 96. Hours and earnings of women workers in Maryland and California; Employment of children in Maryland industries; Massachusetts manufactures and health of employees; German workmen's insurance code, July 19, 1911. September, 1911. (In press.)

BUREAU OF LIGHTHOUSES.

- List of lights and fog signals, Atlantic and Gulf coasts of the United States. Corrected to Jan. 31, 1911. 207 pp. 1911.
- List of lights and fog signals of the United States and the Dominion of Canada on the northern lakes and rivers, and of the unlighted aids to navigation of the United States on those waters. Corrected to July 15, 1910. 180 pp., 1 map. 1910.
- Same, on the Pacific coast of North America, and of the United States on the Hawaiian, Midway, Guam, and Samoan Islands. Corrected to July 31, 1909. 53 pp., 10 pls., 1 map. 1909.
- Atlantic coast of the United States. List of buoys and other aids to navigation, Maine and New Hampshire. First lighthouse district. Corrected to July 15, 1911. 88 pp. 1911.
- Same, coast of Massachusetts. Second lighthouse district. Corrected to Aug. 31, 1911. 70 pp. 1911.
- Same, Narragansett Bay to Cape May, including New York Harbor. Third lighthouse district. Corrected to Mar. 31, 1911. 110 pp. 1911.
- Same, Delaware Bay and River, including Philadelphia Harbor. Fourth lighthouse district. Corrected to Mar. 15, 1911. 30 pp. 1911.
- Same, Cape Henlopen to Cape Lookout, including Chesapeake Bay and North Carolina sounds. Fifth lighthouse district. Corrected to Apr. 1, 1911. 115 pp. 1911.
- Same, Cape Lookout to Hillsboro Inlet. Sixth lighthouse district. Corrected to Oct. 1, 1911. 60 pp. 1911.
- Same, Florida Reefs, and Gulf Coast to Cedar Keys. Seventh lighthouse district. Corrected to May 15, 1911. 37 pp. 1911.
- Gulf coast of the United States. List of buoys and other aids to navigation, Cedar Keys to the Rio Grande. Eighth lighthouse district. Corrected to Aug. 1, 1911. 51 pp. 1911.
- West Indies. List of buoys and other aids to navigation, Porto Rico and adjacent islands. Ninth lighthouse district. Corrected to May 15, 1911. 21 pp. 1911.
- List of lights, buoys, and daymarks on the Ohio, Tennessee, Kanawha, and Monongahela Rivers. Fourteenth lighthouse district. Corrected to July 1, 1911. 119 pp. 1911.
- List of aids to navigation on the Mississippi River (New Orleans to Cairo). Fifteenth lighthouse district. Corrected to Aug. 15, 1910. 65 pp. 1911.
- Pacific coast of the United States. List of buoys and other aids to navigation, California, Oregon, Washington, Alaska. Sixteenth, Seventeenth, and Eighteenth lighthouse districts. Corrected to July 1, 1911. 84 pp. 1911.
- Pacific islands of the United States. List of buoys and other aids to navigation, Hawaiian and Samoan Islands. Nineteenth lighthouse district. Corrected to July 31, 1911. 21 pp. 1911.
- Annual report of the Commissioner of Lighthouses, 1911. 81 pp. 1911. [There are also on hand a limited supply of each of the annual reports since 1895, except those for 1904 and 1905.]
- Report on use of acetylene gas by the Canadian government as an illuminant for aids to navigation. By Capt. Albert Ross, U. S. N., member of the Light-House Board. 26 pp. 1907.
- Report upon fog-signal experiments. By Maj. William B. Livermore, Corps of Engineers, U. S. A. 876 pp., 64 pls. 1894.

BUREAU OF LIGHTHOUSES—Continued.

- Aberrations of audibility of fog-signals.** By Arnold B. Johnson, chief clerk of the Light-House Board. 16 pp., 1 pl. 1885.
- History of the application of electric light to lighting the coasts of France.** By Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 pp., 25 pls. 1883.
- Report upon the exhibit of the Light-House Board at the World's Columbian Exposition held at Chicago, 1893.** By A. B. Johnson, chief clerk, Light-House Board. 42 pp., illus. 1894.
- Regulations for lighting bridges over navigable rivers, 1907.** 19 pp., 7 diag. 1907.
- Whitewash and cement-wash formulas.** 1 p. 1906.

The Bureau also, in collaboration with the Coast and Geodetic Survey, publishes weekly, for the benefit of mariners and others interested in navigation, a Notice to Mariners. Requests to be placed on the mailing list to receive the publication regularly should be addressed to the Division of Publications.

BUREAU OF MANUFACTURES.

The publications of the Bureau of Manufactures are made up chiefly of reports from United States consular officers and commercial agents in foreign countries, and in addition to those listed below the Bureau publishes the Daily Consular and Trade Reports, which is designed to benefit manufacturers, exporters, etc., in promoting trade. The number of copies that may be distributed is limited by law; therefore preference is given to applications received from those for whose special benefit it is issued. Applications should be addressed to the Bureau.

SPECIAL AGENTS SERIES.

6. Report on trade conditions in Japan and Korea. 48 pp. 1906.
7. Report on trade conditions in China. 125 pp., 17 text figs. 1906.
12. Report on trade conditions in Asiatic Turkey. 45 pp. 1907.
17. Report on trade conditions in Australasia. 48 pp. 1908.
18. Cotton textile trade in Turkish Empire, Greece, and Italy. 125 pp. 1908.
19. Report on trade conditions in Ecuador. 39 pp. 1908.
20. Swiss embroidery and lace industry. 43 pp. 1908.
26. Machine-tool trade in Germany, France, Switzerland, Italy, and the United Kingdom. 246 pp. 1909.
27. German iron and steel industry. 73 pp. 1909.
28. American agricultural implements in Europe, Asia, and Africa. 88 pp. 1909.
30. Flour and wheat trade in European countries and the Levant. 168 pp. 1909.
32. Machine-tool trade in Belgium. 93 pp. 1909.
34. Machine-tool trade in Austria-Hungary, Denmark, Russia, and Netherlands. 187 pp. 1910. [Also supplement.]
35. Flour trade in Latin America—Part 1. Porto Rico. 30 pp. 1910.
36. Cotton goods in Latin America—Part 2. Brazil, Colombia, and Venezuela. 96 pp. 1910.
37. Shoe and leather trade in Argentina, Chile, Peru, and Uruguay. 72 pp. 1910.
38. Industrial conditions in Europe—Part 1. England and France. 56 pp. 1910.
42. Industrial conditions in Europe—Part 2. Austria-Hungary. 48 pp. 1910.
44. Cotton goods in Latin America—Part 4. Chile, Bolivia, Peru, Ecuador, Jamaica, and Porto Rico. 118 pp., 8 text figs. 1911.
45. Trade development in Latin America. 56 pp. 1911.
46. Cotton goods in Spain and Portugal. 60 pp., 1 text fig. 1911.
47. English cotton-goods trade. 11 pp. 1911.

BUREAU OF MANUFACTURES—Continued.

SPECIAL CONSULAR REPORTS.

35. Warehouses in foreign countries for storage of merchandise in transit or in bond. 206 pp. 1905.
37. Machine-made lace industry in Europe. 39 pp., 22 pls., 4 text figs. 1905.
40. Motor machines—Part 2. 144 pp. 1908.
41. Part 3—Commercial courts in Europe. 29 pp. 1909.
Part 4—Police and work dogs in Europe. 16 pp., 7 text figs. 1909.
Part 5—Soya bean and products. 35 pp. 1909.
Part 6—Manufacture of air-nitrate fertilizers. 16 pp., 2 text figs. 1909.
42. Part 1—Municipal art commissions and street lighting in European cities. 30 pp. 1910.
Part 2—Municipal taxation in European countries. 88 pp. 1910.
Part 3—Municipal markets and slaughterhouses in Europe. 117 pp., 9 text figs. 1910.
43. Part 1—Coal trade in Latin America. 32 pp. 1910.
Part 2—Agricultural machinery in foreign countries. 38 pp., 3 text figs. 1910.
Part 3—Camphor industry in foreign countries. 15 pp., 2 text figs. 1910.
44. Cotton-goods trade in China. 32 pp. 1911.
45. Cordage and twine trade in foreign countries. 47 pp. 1911.
46. Optical-goods trade in foreign countries. 94 pp. 1911.
47. Australia, its resources, industries, and trade, with suggestions as to its development as a market for American merchandise. 126 pp. 1911.
48. Railway situation in China. 32 pp. 1911.
49. The Gothenburg system. Law and regulations governing the manufacture and sale of alcoholic beverages in Gothenburg, Sweden. 48 pp. 1911.
50. Cocoa production and trade. (In press.)

ANNUAL SERIES OF CONSULAR REPORTS, 1907.

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| 3. Panama. 15 pp. | 30. Turkey in Asia. 52 pp. |
| 4. Canada. 94 pp. | 31. Servia and Roumania. 30 pp. |
| 6. Italy. 53 pp. | 32. Peru, Ecuador, and Paraguay. 31 pp. |
| 8. Germany. 108 pp. | 33. Japan and Korea. 91 pp. |
| 16. United Kingdom. 112 pp. | 34. Siam and Dutch East Indies. 26 pp. |
| 17. Netherlands. 18 pp. | 35. Central America. 47 pp. |
| 18. Switzerland. 22 pp. | 36. West Indies. 42 pp. |
| 20. Russia. 37 pp. | 37. Malta and Gibraltar. 15 pp. |
| 21. Brazil. 27 pp. | 38. Australasia. 38 pp. |
| 22. Colombia, Venezuela, and British and Dutch Guiana. 39 pp. | 39. Northern and Central Africa. 55 pp. |
| 24. Argentina. 24 pp. | 40. South and East Africa. 74 pp. |
| 25. Belgium. 43 pp. | |
| 28. British East Indies. 57 pp. | |
| 29. China. 92 pp. | |

MISCELLANEOUS PUBLICATIONS.

Annual report of the Chief of the Bureau of Manufactures, 1911. 16 pp. 1911.
[There are also available a limited number of the annual reports for each year since 1905, with the exception of 1909.]

Commercial relations of the United States with foreign countries, calendar year 1909. 1060 pp. 1911. [Annual reports of consuls on commerce and industries of the various countries of the world. There are also available a few copies of the reports for several prior years.]

Export trade exploitation. [Misc. series No. 2a.] 2d ed., with additions. Mar. 10, 1911. 30 pp. 1911.

BUREAU OF MANUFACTURES—MISCELLANEOUS PUBLICATIONS—Con.

Packing for export. Suggestions for preparation of American merchandise for shipment to foreign countries. [Misc. series No. 5.] 170 pp., 28 text figs. 1911.

Promotion of commerce. Outline of the service maintained by the Bureau of Manufactures and other bureaus and offices of the Government of the United States. [Misc. series No. 6A.] 22 pp. 1911.

TARIFF SERIES.

No. 2. Tariffs on agricultural and animal products. 120 pp. 1907.

No. 3A. Supplement to Tariff Series, No. 3. 34 pp. 1910.

No. 6A. Commercial agreement between the United States and France. 4 pp. 1908.

No. 6B. Proposed new customs tariff of France (2d rev. ed.). 50 pp. 1909.

No. 6C. Commercial convention between France and Canada. 35 pp. 1909.

No. 6D. Abrogation of commercial agreement between the United States and France. 4 pp. 1909.

No. 6E. Proposed new customs tariff of France [supplement to Tariff Series No. 6B]. 19 pp. 1910.

No. 7. Customs tariff of the German Customs Union. Law of December 25, 1902, revised to June, 1911. 127 pp. 1911.

No. 7A. Supplement to German customs tariff. (In press.)

No. 8. Customs tariff of New Zealand. 36 pp. 1908.

No. 12. Customs tariff of Saint Lucia. 8 pp. 1908.

No. 13. Customs tariff of Turks and Caicos Islands. 4 pp. 1908.

No. 14. Customs tariff of Bahamas, British West Indies. 12 pp. 1908.

No. 14A. Supplement to customs tariff of Bahamas. 1 p. 1909.

No. 15. Customs tariff of Italy. 92 pp. 1908.

No. 15A. Supplement to customs tariff of Italy. 6 pp. 1909.

No. 15B. Supplement to customs tariff of Italy. 4 pp. 1911.

No. 16. Preferential tariff of Brazil. 4 pp. 1908.

No. 17. Customs tariff of Australia. 76 pp. 1908.

No. 17A. Supplement to customs tariff of Australia. 2 pp. 1909.

No. 17B. Supplement to customs tariff of Australia. 4 pp. 1910.

No. 17C. Supplement to customs tariff of Australia. 7 pp. 1911.

No. 18. Customs tariff of the United Kingdom. 12 pp. 1908.

No. 19. Commercial travelers in foreign countries. 71 pp. 1908.

No. 20. Export tariffs of foreign countries. 48 pp. 1909.

No. 22. Proposed new customs tariff of Argentina. 4 pp. 1909.

No. 24. Consular regulations of foreign countries. 75 pp. 1910.

No. 25. Customs tariff of France. 132 pp. 1910.

No. 26. Tariff relations of Canada. System now in force and proposed concessions to the United States. March, 1911. 39 pp. 1911.

No. 27. Customs tariff of Cuba. Revised to November, 1911. 89 pp. 1911.

No. 27A. Supplement to customs tariff of Cuba. 1 p. 1911.

The Bureau issues also from time to time compilations of foreign tariff notes from the Daily Consular and Trade Reports. Nos. 1, 2, 3, and 4 of the series, embodying extracts from the Daily from July 5, 1910, to October 25, 1911, are available for distribution.

BUREAU OF NAVIGATION.

Annual report of the Commissioner of Navigation, 1911. 299 pp. 1911. [There are also available a few copies of the report for each year since 1894, with the exception of 1905 and 1909.]

BUREAU OF NAVIGATION—Continued.

Seagoing vessels of the United States with official numbers and signal letters.

Part VI of the 43d annual list of merchant vessels of the United States for the year ending June 30, 1911. 130 pp., il. 1911. [There are also available a limited number of copies of the list for 1908.]

Rules and regulations relating to the anchorage of vessels in the port of New York. (June 15, 1911.) 8 pp., 8 pls. 1911.

Rules for the St. Marys River. Apr. 15, 1911. 14 pp. 1911.

Rules and regulations relating to the anchorage and movement of vessels in harbors of Chicago. May 7, 1909. 6 pp., 1 pl. 1909.

BUREAU OF STANDARDS.

In addition to the tests and comparisons made by the Bureau of Standards, its work includes such researches as are involved in the establishment and maintenance of the various standards and units of measurement, the development of measuring instruments and methods of measurement, the determination of physical constants and the properties of materials. The results of these investigations are published in pamphlet form, and in the following pages is given a list of these papers. They cover a wide range of subjects in the field of physical measurements and are issued for general distribution to the scientific, technical, and industrial interests concerned with the subjects treated. The papers will be sent upon request and may be designated by the numbers which precede the titles in the list. It is assumed that individuals generally are interested in a particular class of work; hence this method of distribution has been adopted in order that each may secure the particular information desired.

These papers are also bound from time to time in the form of a bulletin which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential; also to a limited number of persons especially concerned with the work of the Bureau as a whole. Arrangements are now being made, however, for the sale of copies of the Bulletin to private individuals, of which due announcement will be made.

The regulations under which tests and comparisons are made by the Bureau and other general information concerning its work are issued in the form of circulars, which are sent upon request.

TECHNICAL PAPERS.

1. Recomparison of the United States prototype meter. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 5-19. 1905.
2. A study of the silver voltameter. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 21-37. 1905.
3. The so-called international electrical units. By Frank A. Wolff. Bulletin, vol. 1, 1904-5, p. 39-76. 1905.
4. The spectra of mixed gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 77-81. 1905.
5. On secondary spectra and the conditions under which they may be produced. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 83-94. 1905.
6. Some new rectifying effects in conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 95-100. 1905.
7. On fibers resembling fused quartz in their elastic properties. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 101-107. 1905.
8. On the temperature of the arc. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 109-124. 1905.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

9. The absolute measurement of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 125-152. 1905.
10. The absolute measurement of capacity. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 153-187. 1905.
11. Optical pyrometry. By C. W. Waidner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 189-254. 1905.
12. On the theory of the Matthews and the Russell-Léonard photometers for the measurement of mean spherical and mean hemispherical intensities. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 255-274. 1905.
13. The testing of clinical thermometers. By C. W. Waidner and L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 275-289. 1905.
14. Measurement of inductance by Anderson's method, using alternating currents and a vibration galvanometer. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 291-336. 1905.
15. Use of serpentine in standards of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 337-348. 1905.
16. The silver coulometer. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 349-364. 1905.
17. History of the standard weights and measures of the United States. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 365-381. 1905.
18. Wattmeter methods of measuring power expended upon condensers and circuits of low power factor. By Edward B. Rosa. Bulletin, vol. 1, 1904-5, p. 383-397. 1905.
19. The relative intensities of metal and gas spectra from electrically conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 399-416. 1905.
20. The use of white walls in a photometric laboratory. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 417-420. 1905.
21. Influence of wave form on the rate of integrating induction wattmeters. By E. B. Rosa, M. G. Lloyd, and C. E. Reid. Bulletin, vol. 1, 1904-5, p. 421-434. 1905.
22. Detector for very small alternating currents and electrical waves. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 435-438. 1905.
23. The positive charges carried by the canal rays. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 439-441. 1905.
24. Radiation from platinum at high temperatures. By G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 443-447. 1905.
25. A five-thousand volt generator set. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 449-451. 1905.
26. Talbot's law as applied to the rotating sector disk. By Edward P. Hyde. Bulletin, vol. 2, 1906, p. 1-32. 1906.
27. A new determination of the electromotive force of Weston and Clark standard cells by an absolute electro-dynamometer. By K. E. Guthe. Bulletin, vol. 2, 1906, p. 33-70. 1906.
28. The Gray absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 71-80. 1906.
29. Construction and calculation of absolute standards of inductance. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 87-143. 1906.
30. An efficiency meter for electric incandescent lamps. By E. P. Hyde and H. B. Brooks. Bulletin, vol. 2, 1906, p. 145-160. 1906.
31. Calculation of the self-inductance of single-layer coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 161-187. 1906.
32. Heat treatment of high-temperature mercurial thermometers. By Hobert C. Dickinson. Bulletin, vol. 2, 1906, p. 189-223. 1906.
33. A new potentiometer for the measurement of electromotive force and current. By H. B. Brooks. Bulletin, vol. 2, 1906, p. 225-238. 1906.
34. Spectrum lines as light sources in polariscopic measurements. By Frederick Bates. Bulletin, vol. 2, 1906, p. 239-248. 1906.
35. Polarimetric sensibility and accuracy. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 249-260. 1906.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

36. On the platinum-point electrolytic detector for electrical waves. By L. W. Austin. Bulletin, vol. 2, 1906, p. 261-274. 1906.
37. The influence of frequency upon the self-inductance of coils. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 275-296. 1906.
38. Experiments on the Heusler magnetic alloys. By K. E. Guthe and L. W. Austin. Bulletin, vol. 2, 1906, p. 297-316. 1906.
39. A pocket spectrophotometer. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 317-318. 1906.
40. Preliminary measurements on temperature and selective radiation of incandescent lamps. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 2, 1906, p. 319-329. 1906.
41. Revision of the formulæ of Weinstein and Stefan for the mutual inductance of coaxial coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 331-357. 1906.
42. The mutual inductance of two circular coaxial coils of rectangular section. By E. B. Rosa and Louis Cohen. Bulletin, vol. 2, 1906, p. 359-414. 1906.
43. On the determination of the mean horizontal intensity of incandescent lamps by the rotating lamp method. By E. P. Hyde and F. E. Cady. Bulletin, vol. 2, 1906, p. 415-437. 1906.
44. Purity and intensity of monochromatic light sources. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 439-456. 1906.
45. Radiometric investigations of infrared absorption and reflection spectra. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 457-478. 1906.
46. A vacuum radiomicrometer. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 479-483. 1906.
47. On the geometrical mean distances of rectangular areas and the calculation of self-inductance. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 1-41. 1907.
48. The compensated two-circuit electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 43-58. 1907.
49. The complete form of Fechner's law. By P. G. Nutting. Bulletin, vol. 3, 1907, p. 59-64. 1907.
50. A comparison of the unit of luminous intensity of the United States with those of Germany, England, and France. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 65-80. 1907.
51. Geometrical theory of radiating surfaces with discussion of light tubes. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 81-104. 1907.
52. The influence of basic lead acetate on the optical rotation of sucrose in water solution. By F. J. Bates and J. C. Blake. Bulletin, vol. 3, 1907, p. 105-113. 1907.
53. On the colorimetric determination of iron with special reference to chemical reagents. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 115-156. 1907.
54. On sulphocyanic acid. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 157-161. 1907.
55. Radiation from and melting points of palladium and platinum. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 3, 1907, p. 163-208. 1907.
56. The mutual inductance of a circle and a coaxial single-layer coil.—The Lorenz apparatus and the Ayrton-Jones absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 209-236. 1907.
57. On the establishment of the thermodynamic scale of temperature by means of the constant-pressure thermometer. By Edgar Buckingham. Bulletin, vol. 3, 1907, p. 237-293. 1907.
58. An exact formula for the mutual inductance of coaxial solenoids. By Louis Cohen. Bulletin, vol. 3, 1907, p. 295-303. 1907.
59. The mutual inductance of coaxial solenoids. By E. B. Rosa and Louis Cohen. Bulletin, vol. 3, 1907, p. 305-324. 1907.
60. The production of high-frequency oscillations from the electric arc. By L. W. Austin. Bulletin, vol. 3, 1907, p. 325-340. 1907.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

61. An explanation of the short life of frosted lamps. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 341-344. 1907.
62. Melting points of the iron group elements by a new radiation method. By G. K. Burgess. Bulletin, vol. 3, 1907, p. 345-355. 1907.
63. On the determination of the mean horizontal intensity of incandescent lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 3, 1907, p. 357-360. 1907.
64. Simultaneous measurement of the capacity and power factor of condensers. By Frederick W. Grover. Bulletin, vol. 3, 1907, p. 371-431. 1907.
65. A new determination of the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 433-604. 1907.
66. A comparison of the various methods of determining the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 605-622. 1907.
67. Preliminary specifications for Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 3, 1907, p. 623-640. 1907.
68. Calorimetric resistance thermometers and the transition temperature of sodium sulphate. By H. C. Dickinson and E. F. Mueller. Bulletin, vol. 3, 1907, p. 641-661. 1907.
69. On the standard scale of temperature in the interval 0 to 100° C. By C. W. Waldner and H. C. Dickinson. Bulletin, vol. 3, 1907, p. 663-728. 1907.
70. Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 1-80. 1907.
71. The electrode equilibrium of the standard cell. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 81-89. 1907.
72. A comparative study of plain and frosted lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 4, 1907-8, p. 91-120. 1907.
73. The variation of resistances with atmospheric humidity. By E. B. Rosa and H. D. Babcock. Bulletin, vol. 4, 1907-8, p. 121-140. 1907.
74. The self-inductance of a toroidal coil of rectangular section. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 141-148. 1907.
75. On the self-inductance of circles. By E. B. Rosa and Louis Cohen. Bulletin, vol. 4, 1907-8, p. 149-159. 1907.
76. The influence of frequency on the resistance and inductance of solenoidal coils. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 161-178. 1907.
77. The atomic weight of hydrogen. By W. A. Noyes. Bulletin, vol. 4, 1907-8, p. 179-204. 1908.
78. The best method of demagnetizing iron in magnetic testing. By G. W. Burrows. Bulletin, vol. 4, 1907-8, p. 205-274. 1908.
79. A deflection potentiometer for voltmeter testing. By H. B. Brooks. Bulletin, vol. 4, 1907-8, p. 275-300. 1908.
80. The self and mutual inductance of linear conductors. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 301-344. 1908.
81. The atomic weight of chlorine. By W. A. Noyes and H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 345-364. 1908.
82. The preparation of chloroplatinic acid by electrolysis of platinum black. By H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 365-367. 1908.
83. The self-inductance of a coil of any length wound with any number of layers of wire. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 369-381. 1908.
84. Self-inductance of a solenoid of any number of layers. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 383-390. 1908.
85. Instruments and methods used in radiometry. By W. W. Coblentz. Bulletin, vol. 4, 1907-8, p. 391-460. 1908.
86. A quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 4, 1907-8, p. 461-466. 1908.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

87. Apparatus for determination of the form of a wave and magnetic flux. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 4, 1907-8, p. 467-476. 1908.
88. Effect of wave form upon the iron losses in transformers. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 477-510. 1908.
89. The luminous properties of electrically conducting helium gas. By P. G. Nutting. Bulletin, vol. 4, 1907-8, p. 511-523. 1908.
90. Function of a periodic variable given by the steady reading of an instrument; with a note on the use of the capillary electrometer with alternating voltages. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 525-532, 1908.
91. Selective radiation from the Nernst glower. By W. W. Coblentz. Bulletin, vol. 4, 1907-8, p. 533-551. 1908.
92. The testing of glass volumetric apparatus. By N. S. Osborne and B. H. Veazey. Bulletin, vol. 4, 1907-8, p. 553-601. 1908.
93. Formulæ and tables for the calculation of mutual and self inductance. By Edward B. Rosa and Louis Cohen. Bulletin, vol. 5, 1908-9, p. 1-132. 1908.
94. Some contact rectifiers of electric currents. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 133-147. 1908.
95. A method for producing feebly damped high-frequency electrical oscillations for laboratory measurements. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 149-152. 1908.
96. On the advantages of a high spark frequency in radio-telegraphy. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 153-157. 1908.
97. Selective radiation from various solids, I. By W. W. Coblentz. Bulletin, vol. 5, 1908-9, p. 159-191. 1908.
98. Remarks on the quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 5, 1908-9, p. 193-198. 1908.
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101. The influence of terminal apparatus on telephonic transmission. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 231-241. 1909.
102. The principles involved in the selection and definition of the fundamental electrical units to be proposed for international adoption. By F. A. Wolff. Bulletin, vol. 5, 1908-9, p. 243-260. 1908.
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109. The testing of transformer steel. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 5, 1908-9, p. 453-482. 1909.
110. A new method of determining the focal length of converging lenses. By Irwin G. Priest. Bulletin, vol. 5, 1908-9, p. 483-497. 1909.
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BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

113. A volt scale for a watts-per-candle meter. By Herbert E. Ives. Bulletin, vol. 5, 1908-9, p. 543-547. 1909.
114. The coefficient of reflection of electrical waves at a transition point. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 549-554. 1909.
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169. Formulas and tables for the calculation of mutual and self-reduction. [2d ed., rev. and enl.] By E. B. Rosa and F. W. Grover. Bulletin, vol. 8, 1911-12, pp. 1-237. 1911.
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TECHNOLOGIC PAPERS.

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Laws concerning the weights and measures of the United States. 476 pp. 1904.

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- First conference on the weights and measures of the United States. 46 pp. 1905.
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- Fourth annual conference on the weights and measures of the United States. 78 pp. 1910.
- Fifth annual conference on the weights and measures of the United States. 123 pp. 1911.
- The National Bureau of Standards. [Description of the work of the Bureau.] 24 pp. 1911.
- Report on the concrete standards of the international electrical units. (In press.)

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The regular publications of the Bureau of Statistics are as follows:

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Laws governing the Steamboat-Inspection Service. Edition July 1, 1911. 62 pp. 1911.
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Pilot rules for certain inland waters of the Atlantic and Pacific coasts and of the coast of the Gulf of Mexico. Edition July 25, 1911. 32 pp., 5 text figs. 1911.
Pilot rules for the rivers whose waters flow into the Gulf of Mexico and their tributaries and the Red River of the North. Edition August 1, 1911. 22 pp., 5 text figs. 1911.
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PREFATORY NOTE.

In its efforts to "foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, the labor interests, and the transportation facilities of the United States," the Department of Commerce and Labor issues many regular and special publications which are intended for free but judicious distribution. The object of this pamphlet is to acquaint the general public with the titles, sizes, and dates of issue of these publications so far as they are available for distribution at the present time.

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- Reports of the Department of Commerce and Labor [report of the Secretary and reports of bureaus consolidated]. 1911. 789 pp. 1912. [There are also on hand a limited supply of the consolidated reports for each of the years 1904, 1905, and 1909.]
- Annual report of the Chief of Appointment Division, 1911. 38 pp. 1911.
[There are also available a few copies of the annual report for 1910.]
- Annual report of the Chief of the Division of Publications, 1911. 28 pp. 1911.
[There are also available a few copies of each of the annual reports from 1907 to 1910, inclusive.]
- Fur seals of Alaska. Hearings before the Committee on Ways and Means, House of Representatives, 58th Congress, 2d session. (Mar. 9 and 10, 1904.) 76 pp. 1904.
- Report on the Alaskan fur-seal fisheries. (Aug. 31, 1906.) By Edwin W. Sims, Solicitor of the Department of Commerce and Labor. 59 pp. 1906.
- Wreck of the steamer Valencia. Report to the President of the Federal commission of investigation. (Apr. 14, 1906.) 53 pp., 3 pls. 1906.
- Report of the commission appointed by the President on September 16, 1903, to investigate the condition of the immigration station at Ellis Island. 83 pp. 1904.
- Departmental index; being an alphabetical arrangement of subjects in the statutes relating to the Executive Departments in general. 60 pp. 1905.
- Proceedings of the first annual meeting of the National Council of Commerce, Washington, D. C., December 10, 1903. 28 pp. 1909.
- Promotion of commerce in France. By Morris Jacobson, internal-commerce expert. 18 pp. 1903.
- Views of the Department of Commerce and Labor on the bill to regulate corporations engaged in interstate and foreign commerce. Letter from the Secretary of Commerce and Labor to the chairman of the Committee on Interstate and Foreign Commerce, House of Representatives, concerning House bill 85, Sixty-second Congress, first session, 1911. 11 pp. 1911.
- List of publications of the Department of Commerce and Labor available for distribution. 8th edition, July 1, 1912. 63 pp. 1912.

In addition to the foregoing, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

BUREAU OF THE CENSUS.

Requests for publications of the Bureau of the Census should be addressed to "The Director of the Census, Washington, D. C."

In addition to the publications listed herein, the Bureau of the Census has issued Thirteenth Census bulletins (1910) for each State

BUREAU OF THE CENSUS—Continued.

on Population, Agriculture (including irrigation for the arid States), and Manufactures; also general or United States bulletins relating to these subjects. Except where editions are exhausted, these bulletins may be obtained upon application to the Director of the Census.

TENTH (1880) CENSUS REPORTS.

Agriculture. 1184 pp., 23 pls., 46 text figs. 1883.

ELEVENTH (1890) CENSUS REPORTS.

Education. 150 pp. 1893.

TWELFTH (1900) CENSUS REPORTS.

Abstract. 470 pp. 1903.

Agriculture, Part I—Farms, live stock, and animal products. 1004 pp., 19 pls. 1902.

Same, Part II—Crops and irrigation. 880 pp., 28 pls., 35 text figs. 1902.

Manufactures, Part I—United States by industries. 1040 pp., 24 pls., 2 text figs. 1902.

Same, Part II—By States and Territories. 1112 pp. 1902.

Same, Part III—Special reports on selected industries. 1144 pp., 33 pls., 23 text figs. 1902.

Manufactures, Part IV—Special reports on selected industries. 996 pp., 14 text figs. 1902.

Manufactures—Textiles (monograph). 258 pp. 1902.

Occupations. 764 pp., 12 pls. 1904.

Population, Part I. 1836 pp., 18 pls. 1901.

Statistical atlas. 92 pp., 207 pls. 1903.

REPORTS OF THE PERMANENT CENSUS.

A century of population growth: 1790–1900. 314 pp., 8 pls., 32 text figs. 1909.

Benevolent institutions: 1904. 336 pp. 1905.

The blind and the deaf: 1900. 264 pp., 3 pls., 51 text figs. 1906.

Central electric light and power stations: 1902. 188 pp., 15 pls., 7 text figs. 1905.

Same, 1907. 200 pp., 26 pls., 10 text figs. 1910.

Electrical industries: 1902. 824 pp., 48 pls., 15 text figs. 1905.

Express business in the United States: 1907. 28 pp. 1908.

Fisheries of the United States: 1908. 324 pp. 1911.

Insane and feeble-minded in hospitals and institutions: 1904. 238 pp. 1906.

Manufactures: 1905—Part I. United States by industries. 1030 pp., 42 text figs. 1907.

Same, 1887–1906—Part II. General tables. 850 pp. 1908.

Mines and quarries: 1902. 1154 pp., 49 pls., 25 text figs. 1905.

Mortality: 1900 to 1904. 1004 pp. 1906.

Same, 1905. 360 pp., 3 text figs. 1907.

Same, 1906. 488 pp., 2 text figs. 1908.

Same, 1907. 528 pp., 11 pls., 1 text fig. 1909.

Same, 1908. 706 pp. 1910.

Paupers in almshouses: 1904. 216 pp. 1906.

Prisoners and juvenile delinquents in institutions. 296 pp. 1907.

Religious bodies: 1906—Part I. Summary and general tables. 576 pp., 25 text figs. 1910.

Same, 1906—Part II. Separate denominations: History, description, and statistics. 672 pp. 1910.

BUREAU OF THE CENSUS—REPORTS OF THE PERMANENT CENSUS—Continued.

Statistics of cities having a population of over 30,000: 1905. 372 pp. 1907.
 Same, 1906. 358 pp. 1908.
 Same, 1908. 353 pp. 1910.
 Street and electric railways: 1907. 576 pp., 30 pls., 10 text figs. 1910.
 Supplementary analysis and derivative tables. 1160 pp., 2 pls., 59 text figs. 1906.
 Telephones and telegraphs: 1902. 184 pp., 14 pls., 8 text figs. 1906.
 Telephones: 1907. 138 pp., 7 pls., 7 text figs. 1910.
 Transportation by water: 1906. 240 pp., 4 pls., 14 text figs. 1908.
 Wealth, debt, and taxation. 1246 pp., 16 text figs. 1907.
 Women at work, statistics of. 400 pp. 1907.

BULLETINS OF THE PERMANENT CENSUS.

Age statistics, a discussion of—13. 54 pp., 2 text figs. 1904.
 Child labor in the United States—60. 200 pp. 1907.
 Commercial valuation of railway operating property in the United States: 1904—21. 88 pp. 1905.
 Cotton ginned in the United States, quantity of (crops of 1890 to 1902, inclusive)—2. 46 pp., 14 text figs. 1903.
 Cotton production: 1906—76. 68 pp., 12 text figs. 1907.
 Same, 1907—95. 58 pp., 7 pls., 5 text figs. 1908.
 Same, 1909—107. 32 pp., 4 text figs. 1910.
 Same, 1910—111. 66 pp., 14 text figs. 1911.
 Cotton production and statistics of cottonseed products: 1905—40. 72 pp., 2 text figs. 1906.
 Earnings of wage-earners—93. 180 pp., 18 text figs. 1908.
 Electrical industries of Porto Rico—99. 30 pp. 1909.
 Estimates of population, 1904, 1905, and 1906—71. 28 pp. 1907.
 Estimates of population of the larger cities of the United States in 1901, 1902, and 1903—7. 22 pp. 1904.
 The executive civil service of the United States: 1904—12. 240 pp. 1904.
 Executive civil service, statistics of employees: 1907—94. 164 pp., 9 text figs. 1908.
 Geographical distribution of population: 1880, 1890, and 1900—1. 24 pp., 1 text fig. 1908.
 Illiteracy in the United States: 1904—26. 54 pp., 4 text figs. 1905.
 Increase of population: 1890 to 1900, a discussion of—4. 64 pp., 10 text figs. 1903.
 Industrial districts: 1905—101. 82 pp., 14 text figs. 1909.
 Insular and municipal finances in Porto Rico for the fiscal year 1902—8—24. 82 pp. 1905.
 Manufactures, census of 1905:
 States and Territories—
 Alabama—43. 23 pp. 1906.
 Arizona, Indian Territory, New Mexico, and Oklahoma—30. 36 pp. 1906.
 California, Oregon, and Washington—49. 74 pp. 1906.
 Colorado, Idaho, Nevada, and Utah—37. 50 pp. 1906.
 Connecticut—42. 40 pp. 1906.
 Delaware—31. 36 pp. 1906.
 Florida—33. 18 pp. 1906.
 Georgia—55. 24 pp. 1906.
 Illinois—62. 52 pp. 1906.
 Indiana—38. 38 pp. 1906.

**BUREAU OF THE CENSUS—BULLETINS OF THE PERMANENT
CENSUS—Continued.**

Manufactures, census of 1905—Continued.

States and Territories—Continued.

Iowa—32. 28 pp. 1906.

Kansas—28. 26 pp. 1906.

Kentucky and Tennessee—47. 46 pp. 1906.

Louisiana, Mississippi, and Texas—48. 58 pp. 1906.

Maine—51. 26 pp. 1906.

Maryland and District of Columbia—27. 34 pp. 1906.

Massachusetts—53. 80 pp. 1906.

Michigan—18. [1904.] 36 pp. 1905.

Minnesota—46. 28 pp. 1906.

Missouri and Arkansas—35. 47 pp. 1906.

Montana, North Dakota, South Dakota, and Wyoming—34. 39 pp. 1906.

Nebraska—29. 20 pp. 1906.

New Hampshire and Vermont—41. 36 pp. 1906.

New Jersey—54. 54 pp. 1906.

New York—59. 102 pp. 1906.

North Carolina and South Carolina—39. 38 pp. 1906.

Ohio—58. 62 pp. 1906.

Pennsylvania—60. 82 pp. 1906.

Rhode Island—36. 30 pp. 1906.

United States—57. 94 pp. 1906.

Virginia and West Virginia—44. 44 pp. 1906.

Wisconsin—56. 40 pp. 1906.

Special Industries—

Agricultural implements—75. 32 pp., 4 text figs. 1907.

Automobiles and bicycles and tricycles—66. 38 pp. 1907.

Boots and shoes, leather, and leather gloves and mittens—72. 82 pp. 1907.

Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 pp. 1907.

Canning and preserving, rice cleaning and polishing, and the manufacture of beet sugar—61. 70 pp. 1906.

Carriages and wagons, and the steam and street railroad car industry—84. 76 pp. 1907.

Chemicals and allied products—92. 124 pp. 1906.

Copper, lead, and zinc, smelting and refining—86. 32 pp. 1907.

Electrical machinery, apparatus, and supplies—73. 74 pp., 7 pls. 1907.

Glass and clay products—62. 108 pp. 1907.

Iron and steel and tin and terne plate—78. 106 pp. 1907.

Lumber and timber products—77. 70 pp., 5 pls. 1907.

Metal-working machinery—67. 18 pp., 3 pls. 1907.

Musical instruments, attachments, and materials—82. 34 pp. 1907.

Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 52 pp. 1907.

Petroleum refining—70. 58 pp., 3 pls. 1907.

Power employed in manufactures—88. 28 pp. 1907.

Printing and publishing—79. 134 pp., 37 text figs. 1907.

Shipbuilding—81. 29 pp., 1 pl. 1907.

Tobacco—87. 34 pp. 1907.

Marriage and divorce: 1887-1906—96. 72 pp., 2 text figs. 1908.

Mines and quarries: 1902—9. 60 pp. 1904.

Mortality: 1908—104. 134 pp. 1909.

BUREAU OF THE CENSUS—BULLETINS OF THE PERMANENT CENSUS—Continued.

- Mortality: 1910—109.** 191 pp. 1912.
- Municipal electric fire-alarm and police-patrol systems: 1902—11.** 84 pp., 1 pl. 1904.
- Population of Oklahoma and Indian Territory: 1907—89.** 44 pp., 1 pl. (folder). 1907.
- Proportion of children in the United States—22.** 28 pp., 2 text figs. 1905.
- Proportion of the sexes in the United States—14.** 52 pp., 8 text figs. 1904.
- Religious bodies: 1906—108.** 92 pp., 3 text figs. 1909.
- Statistics of cities having a population of 8,000 to 25,000: 1903—45.** 282 pp. 1906.
- Statistics of cities having a population of over 25,000: 1902 and 1908—20.** 482 pp. 1905.
- Statistics of cities having a population of over 30,000: 1904—50.** 210 pp. 1906.
- Supervisors' districts—Thirteenth Census—98.** 70 pp., 51 text figs. 1909.
- Supply and distribution of cotton for the year ending August 31, 1905—25.** 16 pp., 2 text figs. 1905.
- Same, 1907—90.** 28 pp., 1 text fig. 1907.
- Same, 1908—97.** 40 pp., 2 pls., 3 text figs. 1908.
- Same, 1909—106.** 64 pp., 15 text figs. 1910.
- Same, 1910—110.** 82 pp., 8 text figs. 1910.
- Same, 1911—113.** 31 pp., 3 text figs. 1911.
- Teachers, census statistics of—23.** 20 pp. 1905.
- Telegraph systems: 1907—102.** 48 pp., 8 pls., 1 text fig. 1909.
- Telephones and telegraphs: 1902—17.** 50 pp. 1905.
- Transportation by water: 1906, United States—91.** 58 pp. 1906.
- Vital statistics of the Twelfth Census, a discussion of—15.** 24 pp. 1904.

PAMPHLETS.

Forest products:

- No. 1. Pulp-wood consumption: 1908.** 12 pp. 1909.
- Same, 1909.** 15 pp., 1 text fig. 1911.
- No. 2. Lumber, lath, and shingles: 1908.** 58 pp., 2 text figs. 1909.
- Same, 1909.** 68 pp., 2 text figs. 1911.
- No. 3. Slack cooperage stock: 1909.** 14 pp. 1911.
- No. 4. Tan bark and tanning extracts: 1908.** 10 pp. 1909.
- Same, 1909.** 14 pp. 1911.
- No. 5. Veneers: 1908.** 14 pp. 1909.
- Same, 1909.** 28 pp. 1911.
- No. 6. Tight cooperage stock: 1909.** 14 pp. 1911.
- No. 7. Wood distillation: 1909.** 11 pp. 1911.
- No. 8. Cross-ties purchased: 1909.** 11 pp. 1911.
- No. 9. Poles purchased: 1908.** 8 pp. 1909.
- No. 9. Poles, cross-arms, brackets, and insular pins purchased: 1909.** 14 pp. 1911.
- No. 10. United States: 1908 (consolidated).** 138 pp., 2 text figs. 1909.
- No. 10. Forest products of the United States: 1909.** 178 pp., 3 text figs. 1911.

MISCELLANEOUS PUBLICATIONS.

- Manual of international classification of causes of death.** 146 pp. 1910.
- Heads of families—First Census of the United States: 1790.**
- Connecticut.** 228 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)
- Maine.** 106 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)
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BUREAU OF THE CENSUS—MISCELLANEOUS PUBLICATIONS—Contd.

Heads of families—First Census of the United States: 1790—Continued.

Maryland. 190 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

Massachusetts. 364 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

New Hampshire. 146 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

New York. 308 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

North Carolina. 292 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Pennsylvania. 426 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Rhode Island. 72 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

South Carolina. 150 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

Vermont. 96 pp., 1 pl. (folder). 1907. (For sale only—\$1 per copy.)

Heads of families—State enumerations made in 1782, 1783, 1784, 1785: Virginia. 189 pp., 1 pl. (folder). 1908. (For sale only—\$1 per copy.)

COAST AND GEODETIC SURVEY.

The publications here listed are, with a few exceptions, arranged chronologically under their respective subjects. They can be obtained free of charge on application to the Chief of the Division of Publications, Department of Commerce and Labor, Washington, D. C., except Coast Pilots and Tide Tables, which are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing, and Chart Catalogues, which can be obtained free of charge on application to the Superintendent of the Coast and Geodetic Survey. The "List and Catalogue," which is a bibliography of the publications issued by this Bureau, may be consulted at any public library.

ANNUAL REPORTS.

Report of the Superintendent of the Coast and Geodetic Survey, showing the progress of the work from July 1, 1910, to June 30, 1911. 584 pp., 43 figs. and diagrs., 9 progress sketches and 4 maps in pocket. 1911. [There are also on hand a limited supply of each of the annual reports for the years 1852, 1853, 1856, 1860, 1861, 1866, 1868, 1873, 1874, 1876-1885, 1887-1889, 1892-1895, 1900, 1901, 1903, 1904, 1908-1910.]

GEODESY.

Standard mean places of circumpolar and time stars, prepared for the use of the U. S. Coast Survey. By B. A. Gould. 2d ed. 15 pp. 1866.

On the use of railways for geodetic surveys. By J. E. Hilgard. Report for 1867, app. 9, p. 140-144, sketch 26.

Reports of observations of the eclipse of the sun on August 7, 1869, made by parties of the United States Coast Survey, at the following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under the immediate direction of the Superintendent of the Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts and plates nos. 24, 25, and 26, 16 figs., 1 map, 2 diagrs.

On the use of the zenith-telescope for observations of time. By J. E. Hilgard. Report for 1869, app. 12, p. 226-232.

Extract from a report to Benjamin Peirce, relative to a method of determining elevations along the course of a tidal river, without the aid of a leveling instrument, by Henry Mitchell. Report for 1870, app. 11, p. 98, 99.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Results of the telegraphic determination of the longitude of San Francisco, Cal.** Report for 1870, app. 12, p. 100.
- Reports of observations upon the total solar eclipse of December 22, 1870.** Report for 1870, apps. 16 and 16a, p. 115-177 and 220-232, 8 figs., 1 pl., 1 diag.
- Determination of weights to be given to observations for determining time with portable transit-instruments, recorded by the chronographic method.** By Charles A. Schott. Report for 1872, app. 12, p. 222-226.
- Note on intervisibility of stations.** By J. E. Hilgard. Report for 1873, app. 13, p. 137, 1 fig.
- Errata in the Hells catalogue of stars.** Report for 1873, app. 15, p. 175-180.
- Geographical positions of prominent places in the United States determined astronomically or geodetically by the United States Coast Survey.** Report for 1874, app. 6, p. 62-65.
- Transit of Venus, 1769.** Results of observations for determining positions occupied in Lower California and at Philadelphia, reported by Charles A. Schott. Report for 1874, app. 10, p. 131-133, 1 map (sketch 22).
- Improved clamp for the telescope of the theodolite.** By George Davidson. Report for 1874, app. 15, p. 153, 1 fig.
- Description of two forms of portable apparatus for the determination of personal equation, both relative and absolute, in observations of star transits.** By J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig., 1 diag.
- Field catalogue of 983 transit stars. Mean places for 1870.0.** By G. Davidson, 33 pp. 1874.
- A catalogue of stars for observations of latitude.** By J. E. Hilgard. Report for 1876, app. 7, p. 83-129.^a
- Comparison of the methods of determining heights by means of leveling, vertical angles and barometric measures, from observations at Bodega Head and Ross Mountain, California.** By George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 figs. [Reprinted from report of 1871, app. 16.]^a
- Observations of atmospheric refraction—Contribution No. II. Determination of several heights by the spirit-level, and measures of refraction by zenith-distances, also observations of the barometer at Ragged Mountain, Maine, in July, August, and September, 1874.** By F. W. Perkins. Results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a
- On atmospheric refraction and adjustment of hypsometric measures—Contribution No. III. Determination of the coefficient of refraction from zenith-distances observed in northern Georgia, by O. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of the method of least squares. Discussion and report by Charles A. Schott.** Report for 1876, app. 18, p. 368-387, 2 figs.^a
- On the adaptation of triangulations to various conditions, depending on the configuration or orographic character of a country and on the degree of accuracy aimed at, with due consideration of the time and means available; also notes on the method of observing horizontal angles and directions in geodetic surveys.** By Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 figs. [Reprinted, with additions, from the report for 1871, app. 15.]
- The Pamlico-Chesapeake arc of the meridian and its combination with the Nantucket and the Peruvian arcs, for a determination of the figure of the earth from American measures.** By Charles A. Schott. Report for 1877, app. 6, p. 84-95.
- Description of an improved open vertical clamp for the telescopes of theodolites and meridian instruments, devised by George Davidson.** Report for 1877, app. 13, p. 182-183, 1 fig.
- Observations of the transit of Mercury, May 6, 1878, made at Summit station, Central Pacific Railroad.** By B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl., 1 sketch (27).
- Observations made at Washington, D. C., of the transit of Mercury, May 6, 1878.** By Charles A. Schott. Report for 1878, app. 7, p. 88-91.

^aNo. 19 of 1876 is also bound with these appendices, and appears under "Allied subjects."

COAST AND GEODETIC SURVEY—GEODESY—Continued.

Adjustment of the primary triangulation between the Kent Island and Atlanta base-lines. By Charles A. Schott. Report for 1878, app. 8, p. 92-120, 1 fig.

Description of the Davidson meridian instrument. By George Davidson. Report for 1879, app. 7, p. 103-109, 1 pl.

Comparison of local deflections of the plumb-line in latitude, longitude, and azimuth, at stations of the oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids. By C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.

On the internal constitution of the earth. By Benjamin Peirce. Report for 1879, app. 14, p. 201.

On instruments and methods used for precise leveling in the Coast and Geodetic Survey. By O. H. Tittmann. Report for 1879, app. 15, p. 202-211, 1 fig., 1 pl., 1 diag.

Observations to determine the refraction on lines passing near a surface of water, made at different elevations across the Potomac River. By Andrew Braid. Report for 1879, app. 16, p. 212, 213.

Report on the results of the longitudes of the Coast and Geodetic Survey determined up to the present time by means of the electric telegraph, together with their preliminary adjustment by the method of least squares. By Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag.

Explanation of apparatus for observation of telegraphic longitudes, with directions for its use. By Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diags. (34 and 35).

Report on geodesic night signals. By Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig., 1 pl., 1 diag. (36 and 37).

Report on geodesic leveling on the Mississippi River. By Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diags. (sketches 45, 46, 47).

An account of a perfected form of the contact-slide base apparatus used in the Coast and Geodetic Survey. By J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. (sketch 82, figs. 1-8).

Meteorological researches. By William Ferrel. Part III. Barometric hypsometry and reduction of the barometer to sea-level. Report for 1881, app. 10, p. 225-268, illus. 38.

On a method of readily transferring the underground terminal marks of a base line. By O. H. Tittmann. Report for 1881, app. 13, p. 357, 358.

On the flexure of pendulum supports. By C. S. Peirce. Report for 1881, app. 14, p. 359-441.

On the deduction of the ellipticity of the earth from pendulum experiments. By C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.

On a method of observing the coincidence of vibration of two pendulums. By C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 figs.

On the value of gravity at Paris. By C. S. Peirce. Report for 1881, app. 17, p. 461-463.

Description and construction of a new compensation primary base apparatus, including the determination of the length of the corresponding five-meter standard bars. By Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 figs., 2 diags.

Report of the measurement of the Yolo base, Yolo County, Cal. By George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig., 1 sketch, 2 diags.

The total solar eclipse of January 11, 1880, observed at Mount Santa Lucia, California. By George Davidson. Report for 1882, app. 20, p. 463-468, 2 diags.

A new reduction of La Caille's observations, made at the Cape of Good Hope and at Paris between 1749 and 1757, and given in his "Astronomiæ Fundamenta," together with a comparison of the results with the Bradley-Bessel "Fundamenta;" also a catalogue of the places of 150 stars south of declination -30° , for the epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.

Report of a conference on gravity determinations, held at Washington, D. C., in May, 1882. Report for 1882, app. 22, p. 503-516.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Results for the length of the primary base-line in Yolo County, Cal., measured in 1881 by the party of George Davidson. Computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag.**
- Results of observations for atmospheric refraction on the line Mount Diablo to Martinez, California, in connection with hypsometric measures by spirit level, the vertical circle and the barometer, made in March and April, 1880, by George Davidson. Reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag.**
- Observations of the transit of Venus of December 6, 1882, at Washington, D. C., and at Tepusquet station, California, and at Lehman's ranch, Nevada. By C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 13, p. 371-378.**
- Field catalogue of 1,278 time and circumpolar stars. Mean places for 1885.0. By George Davidson. Report for 1883, app. 18, p. 383-471.**
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., in 1879 and 1880. By Charles S. Peirce. Report for 1883, app. 19, p. 473-487.**
- The run of the micrometer. By George Davidson. Report for 1884, app. 8, p. 377-385.**
- Connection at Lake Ontario of the primary triangulation of the Coast and Geodetic Survey with that of the Lake survey. Observations by Charles O. Boutelle. Discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map (illus. 20).**
- Results of a trigonometrical determination of the heights of the stations forming the Davidson quadrilaterals. California. Observations by George Davidson, 1876-1882. Discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 figs.**
- Longitudes deduced in the Coast and Geodetic Survey from determinations by means of the electric telegraph between the years 1846 and 1885. Second adjustment. By Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. (illus. 21).**
- Determinations of gravity with the Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal., and Washington, D. C. By Edwin Smith. Report for 1884, app. 14, p. 439-473.**
- On the use of the nobby for measuring the amplitude of swaying in a pendulum support. By C. S. Peirce. Report for 1884, app. 15, p. 475-482.**
- Note on the effect of the flexure of a pendulum upon its period of oscillation. By C. S. Peirce. Report for 1884, app. 16, p. 483-485.**
- Geographical positions of trigonometrical points in the States of Massachusetts and Rhode Island, determined by the United States Coast and Geodetic Survey between the years 1835 and 1885, and including those determined by the Borden survey in the years 1832 to 1838. By Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps (illus. 25, 26).**
- Results deduced from the geodetic connection of the Yolo base line with the primary triangulation of California. Also a reduction and adjustment of the Davidson quadrilaterals forming part of that triangulation. By Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.**
- Note on a device for abbreviating time reductions. By C. S. Peirce. Report for 1885, app. 15, p. 503-508.**
- On the influence of a nobby on the period of a pendulum. By C. S. Peirce. Report for 1885, app. 16, p. 509, 510.**
- On the effect of unequal temperature upon a reversible pendulum. By C. S. Peirce. Report for 1885, app. 17, p. 511, 512.**
- Fluctuations in the level of Lake Champlain and average height of its surface above the sea. A preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. (illus. 33).**
- Heights from spirit-levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, in 1835-86. Report by Charles A. Schott. Report for 1887, app. 9, p. 185-205.**

COAST AND GEODETIC SURVEY—GEODESY—Continued.

Report of the results of spirit-leveling of precision about New York Bay and vicinity in 1886 and 1887. Observations by John B. Weir and J. E. McGrath. Discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map (illus. 48).

A bibliography of geodesy. By J. Howard Gore. Report for 1887, app. 16, p. 313-512.

Geographical positions of trigonometrical points in the State of Connecticut, determined by the U. S. Coast and Geodetic Survey between the years 1863 and 1886. Introduction and explanation of the tabular results. By Charles A. Schott. Report for 1888, app. 8, p. 313-403, map.

Heights from spirit-leveling of precision between Mobile, Ala., and Okolona, Miss. Observations by J. B. Weir and J. E. McGrath, in 1884, 1886, and 1887. Report by Charles A. Schott. Report for 1888, app. 10, p. 409-426.

Heights from spirit-leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark. Report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453.

Heights from spirit-leveling of precision between Arkansas City (on the Mississippi River) and Little Rock, Ark. Observations by J. E. McGrath, in 1887-88. Report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.

Differential method of computing the apparent places of stars for determinations of latitude. By E. D. Preston. Report for 1888, app. 13, p. 465-470.

Determinations of latitude and gravity for the Hawaiian government. By E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pls., 5 maps, 5 diagrs. Same, abstract. Bull., no. 11, p. 137-142, 1 fig. and 3 progress maps. 1889.

Report on the measurement of the Los Angeles base line, Los Angeles and Orange counties, California. By George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diagrs.

Results of spirit-leveling between tide-water at Annapolis, Md., and the Capitol bench-mark at Washington, D. C., from observations in 1875 by F. W. Perkins. Report by C. A. Schott. Report for 1889, app. 15, p. 461-466.

Report on the resulting length and probable uncertainty of five principal base lines, measured with the compensation base apparatus, Bache-Würdemann, of the Coast Survey, between the years 1847 and 1855, inclusive. By Charles A. Schott. Report for 1889, app. 17, p. 479-491.

Report of George Davidson, appointed by the President of the United States as the delegate to the Ninth Conference of the International Geodetic Association held at Paris, October, 1889. Report for 1889, app. 18, p. 493-503, 1 fig.

Telegraphic determination of the longitude of Mount Hamilton, California. Field work by C. H. Sinclair and R. A. Marr. By Charles A. Schott. Bull., no. 13, p. 147-150. 1889.

Description of two new transit instruments for longitude work. Constructed at the office of the Survey from designs by Edwin Smith. Bull., no. 16, p. 161-164, 1 fig., 1 diag. 1889.

Determinations of gravity and the magnetic elements in connection with the U. S. scientific expedition to the west coast of Africa, 1889-1890. By E. D. Preston. Report for 1890, app. 12, p. 625-684, 16 figs., 10 pls., 1 map. [Includes observations on some islands in the North and South Atlantic ocean.]

Same, abstract. Bull., no. 22, p. 219-223, 1 map, 7 pls. 1891.

International Geodetic Association. Ninth Conference. Paris, October 3-12, 1889. Address of George Davidson, appointed as delegate to the association on the part of the United States. Report for 1890, app. 17, p. 721-733.

Approximate times of culminations and elongations and the azimuths at elongation of Polaris for the years between 1889 and 1910. Submitted for publication as a bulletin November 21, 1889, by Charles A. Schott, and first published February 18, 1890. Report for 1891, pt. 2, app. 1, p. 7-13. [Reprinted from Bull., no. 14.]

COAST AND GEODETIC SURVEY—GEODESY—Continued.

On the determination of an azimuth from micrometric observations of a close circumpolar star near elongation by means of a meridian transit, or by means of a theodolite with eyepiece micrometer. Submitted for publication as a bulletin December 12, 1890, and first published February 26, 1891. Report on method and example of computation by Charles A. Schott. Observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull., no. 21.]

The transit of Mercury of May 9, 1881, as observed at Waikiki, Hawaiian Islands. By E. D. Preston. Report for 1891, pt. 2, app. 12, p. 475-477.

Report of an expedition to Muir Glacier, Alaska, with determinations of latitude and the magnetic elements at Camp Muir, Glacier Bay. By Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.

On the variation of latitude at Rockville, Md., as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association, by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 figs., 2 pls., 2 diags.

Same, abstract. Bull., no. 25, p. 237-261, 2 diags. 1892.

On the variation of latitude at Waikiki, near Honolulu, Hawaiian Islands, as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association. By E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 1 fig., 3 pls., 2 maps, 9 diags.

On the results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Weir, Isaac Winston, P. A. Welker, and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 3, p. 161-206, 1 fig., 1 map.

On the results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations made in 1890 and 1891 by Isaac Winston and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224.

On the measurement of the Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va. Report for 1892, pt. 2, app. 8, p. 329-508, 2 figs., 2 pls., 2 diags.

Measure of the irregularity in one turn of the micrometer screw, and the relative value of each turn. By George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag.

On the direct synthetical method of adjusting a triangulation. By Chas. H. Kummell. Report for 1892, pt. 2, app. 12, p. 535-552, 4 figs.

On the resulting heights from geodetic leveling along the transcontinental line of levels between St. Louis and Jefferson City, Mo., executed in the years 1882 and 1883, by Andrew Braid, Gershom Bradford, and Isaac Winston. Discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-86, 1 fig., 1 diag.

On photography as applied to obtain an instantaneous record of lunar distances for determinations of longitude. By C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124.

On the measurement of base line with steel tapes and with steel and brass wires. By Edw. Jäderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl., 1 diag.

Proceedings of the Geodetic Conference, held at Washington, D. C., January 9 to February 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 4 figs., 7 pls., 1 map, 1 diag.

The variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson between May, 1891, and August, 1892. Discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diags.

Determinations of latitude, gravity, and the magnetic elements at stations in the Hawaiian Islands, including a result for the mean density of the earth. 1891, 1892. By E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 12 figs., 8 pls., 2 maps, 6 diags.

Results of observations for the variations of latitude at Waikiki, Hawaiian Islands, in cooperation with the work of the International Geodetic Association. By E. D. Preston. Bull., no. 27, n. 6-20, 2 diags. 1893.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- The constant of aberration as determined from a discussion of results for latitude at Waikiki, Hawaiian Islands. By E. D. Preston. Bull., no. 28, p. 21-34, 1 diag. 1893.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations. By G. R. Putnam; and a report on a geologic examination of some Coast and Geodetic Survey gravity stations. By G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 figs., 1 diag.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore. By E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig.
- Notes on some instruments recently made in the instrument division of the Coast and Geodetic Survey office. By Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pls.
- Geographic positions of trigonometric points in the State of Massachusetts, determined by the United States Coast and Geodetic Survey between the years 1843 and 1894, and including those determined by the Survey made by Borden in the years 1832 to 1838. (2d enlarged and revised ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 3 maps.
- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 3, p. 333-344.
- Graphic method of reducing stars from mean to apparent places. By E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diag.
- Description of leveling rods designed and constructed for use in geodetic leveling operations. By Isaac Winston. Report for 1895, app. 8, p. 381, 382, 2 diag.
- Tables of azimuth and apparent altitude of Polaris at different hour angles. By G. R. Putnam. Report for 1895, app. 10, p. 393-398.
- The constant of aberration as determined from observations of latitude at San Francisco, Cal. Discussion by E. D. Preston. Observations by George Davidson. Bull., no. 32, p. 109-120. 1895.
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir between September and November, 1884, and by I. Winston between December, 1891, and February, 1892. By C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map.
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations made by J. B. Weir in September and October, 1883, and September and October, 1884, with releveing by J. B. Weir between Richmond and Fredericksburg, Va., in May and June, 1883, and verification leveling between the two cities by I. Winston between April and June, 1895. By Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map.
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations made by J. B. Weir between July and September, 1883. Report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map.
- Resulting heights from spirit leveling between Jefferson City, Mo., and Holli-day, Kans., from observations by I. Winston and F. A. Young between April 21 and October 13, 1891. Report by C. A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig., 1 map.
- Field method of reducing portable transit time observations. By G. R. Putnam. Report for 1896, app. 9, p. 347-352.
- Determination of the constant of aberration from latitude observations with the zenith telescope at Honolulu, H. I., and San Francisco, Cal. By E. D. Preston. Report for 1896, app. 10, p. 353-371, 2 diag.
- The telegraphic longitude net of the United States and its connection with that of Europe, 1866-1896. By C. A. Schott. Report for 1897, app. 2, p. 197-261, 1 map.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by the party under the charge of Fremont Morse. By Charles A. Schott. Report for 1897, app. 3, p. 263-268.
- Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston between July 11 and October 28, 1896. By Chas. A. Schott. Report for 1897, app. 4, p. 269-283, 1 fig.
- Results of pendulum observations made in 1896 and 1896. By G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl., 1 map.
- The duplex base apparatus, and directions for its use in the field. By William Eimbeck. Report for 1897, app. 11, p. 737-752, 2 figs., 3 pls., 1 diag.
- Report on the measurement of the Salt Lake base line, in Utah. By William Eimbeck. Report for 1897, app. 12, p. 753-774, 1 fig., 6 pls., 1 map, 2 diags.
- Resulting heights from spirit leveling between Salina and Ellis, Kans., from observations made by I. Winston between July 2 and September 9, 1896. Report by C. A. Schott. Report for 1898, app. 1, p. 179-193, 1 fig.
- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston between June 11 and November 17, 1897. Report by C. A. Schott. Report for 1898, app. 2, p. 195-214, 2 figs.
- Resulting heights from spirit leveling between Hugo and Colorado Springs, Colo., from observations by I. Winston between April 20 and July 8, 1898. Report by C. A. Schott. Report for 1898, app. 3, p. 215-223, 1 fig.
- Inquiry into the relative value and need of a check of the Peruvian arc of 1736-1743. By C. A. Schott. Report for 1898, app. 4, p. 229-232.
- Physical observations made in connection with the Pribilof Islands survey of 1897. By G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig., 1 map.
- Report on the proceedings of the International Geodetic Association Conference at Stuttgart, Germany, October 3 to 12, 1898, and on geodetic operations in the United States. By E. D. Preston, delegate on the part of the United States. Report for 1898, app. 6, p. 243-260, 1 pl., 3 maps.
- The International Geodetic Association for the measurement of the earth. By Erasmus D. Preston, delegate on the part of the United States at the Twelfth General Conference. Report for 1899, app. 3, p. 241-269, 1 map.
- Determinations of gravity at the Polytechnic Institute, Worcester, Mass., and at Columbia University, New York City, with pendulum apparatus B. By Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 figs.
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston between May 12 and October 21, 1899. By Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig.
- Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton between May 8 and October 17, 1899. By B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig.
- Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson between June 3 and November 28, 1899. Report by O. W. Ferguson. Report for 1899, app. 7, p. 321-345, 1 fig.
- Precise leveling in the United States. By John F. Hayford. Report for 1899, app. 8, p. 347-386, 3 figs., 8 pls., 2 maps.
- The oblique boundary line between California and Nevada. By C. H. Sinclair. Report for 1900, app. 3, p. 255-484, 121 figs., 32 pls., 15 maps.
- The international latitude service at Gaithersburg, Md., and Ukiah, Cal., under the auspices of the International Geodetic Association, by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495-520, 1 fig., 2 pls., 2 maps, 2 diags.
- The determination of the mean value of one revolution of a micrometer screw and the progressive and periodic errors of the screw, from observations on a circumpolar star near its elongation. By Edwin Smith. Report for 1900, app. 8, p. 701-712.
- The transcontinental triangulation and the American arc of the parallel. By Chas. A. Schott. Special publication no. 4. 871 pp., 2 figs., 17 pls., 4 maps, 33 diags. 1900.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Table of coefficients for reducing inclined sights on vertical rod to horizontal distance. 4 pp. 1900.
- Table of factors for computing differences in elevation (in feet). Table of corrections for curvature and refraction (in feet). 4 pp. 1900.
- Table of factors for computing differences in elevation (in meters). Table of corrections for curvature and refraction (in meters). 4 pp. 1900.
- Table showing the height in meters, corresponding to given angles of elevation and distances in meters. 4 pp. 1900.
- On the measurement of nine base lines along the ninety-eighth meridian. By A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229-302.
- Extension of tables for the computation of geodetic positions to the Equator. By John F. Hayford. Report for 1901, app. 4, p. 303-339.
- Determination of relative value of gravity in Europe and the United States in 1900. By G. R. Putnam. Report for 1901, app. 5, p. 341-355.
- Triangulation northward along the ninety-eighth meridian in Kansas and Nebraska. By John F. Hayford. Report for 1901, app. 6, p. 357-423.
- Triangulation in Kansas. By J. F. Hayford. Report for 1902, app. 3, p. 211-298, 5 sketch maps.
- A bibliography of geodesy. 2d ed. By J. H. Gore. Report for 1902, app. 8, p. 427-787.
- The eastern oblique arc of the United States and osculating spheroid. By Chas. A. Schott. Special publication no. 7. 394 pp., 12 pls., 2 maps, 25 diag. 1902.
- Precise leveling in the United States, 1900-1903, with a readjustment of the level net and resulting elevations. By J. F. Hayford. Report for 1903, app. 3, p. 189-810, 2 views, 14 maps and sketches, 6 diag.
- Triangulation southward along the ninety-eighth meridian in 1902. By J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diag.
- Report on geodetic operations in the United States, 1900-1903, to the Fourteenth General Conference of the International Geodetic Association. By O. H. Tittmann. 28 pp., 1 illus. 1903.
- Telegraphic longitudes. The Pacific arcs from San Francisco to Manila, 1903-4, completing the circuit of the earth. By Edwin Smith. Report for 1904, app. 4, p. 259-311, 13 illus.
- Precise leveling from Red Desert, Wyoming, to Owyhee, Idaho, 1903. By J. F. Hayford. Report for 1904, app. 6, p. 403-430.
- Precise leveling from Holland to New Braunfels, Texas, 1903. By J. F. Hayford. Report for 1904, app. 7, p. 433-450.
- A test of a transit micrometer. By John F. Hayford. Report for 1904, app. 8, p. 453-487, 2 illus.
- Triangulation in California, Part I. By A. L. Baldwin. Report for 1904, app. 9, p. 491-764, 21 illus.
- Precise leveling from Red Desert, Wyoming, to Seattle, Washington, 1903-4. By J. F. Hayford. Report for 1905, app. 4, p. 193-241.
- Triangulation along the ninety-eighth meridian, Lampasas to Seguin, Texas. By J. F. Hayford. Report for 1905, app. 5, p. 243-282, 2 diag.
- The earth movements in the California earthquake of 1906. By J. F. Hayford and A. L. Baldwin. Report for 1907, app. 3, p. 67-104, 2 maps in colors.
- Six primary bases measured with steel and invar tapes. By O. B. French. Report for 1907, app. 4, p. 105-156.
- Precise leveling in the United States, 1903-1907, with a readjustment of the level net and resulting elevations. By J. F. Hayford and L. Pike. 280 pp., 1 map. 1909.
- The figure of the earth and isostasy from measurements in the United States. By J. F. Hayford. 178 pp., 6 maps, 11 diag. 1909.
- Geodetic operations in the United States, 1906-1909. A report to the Sixteenth General Conference of the International Geodetic Association. By O. H. Tittmann and J. F. Hayford. 11 pp. 1909.

COAST AND GEODETIC SURVEY—GEODESY—Continued.

- Supplementary investigation in 1909 of the figure of the earth and isostasy. By J. F. Hayford. 80 pp., 5 maps, 1 diag. 1910.
- Primary base lines at Stanton, Texas, and Deming, New Mexico. By William Bowle. Report for 1910, app. 4, p. 143-171, 5 text figs.
- Triangulation in California, Part II. By C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diags.
- Measurement of the flexure of pendulum supports with the interferometer. By W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text figs.
- Formule and tables for the computation of geodetic positions. 5th edition, with a preface by C. R. Duvall. Special publication no. 8. 91 pp. 1911.
- The effect of topography and isostatic compensation upon the intensity of gravity. By John F. Hayford and William Bowle. Special publication no. 10. 132 pp., 11 text figs., 9 charts (5 in pocket). 1912.
- Triangulation along the ninety-eighth meridian, Nebraska to Canada, and connection with the Great Lakes. By William Bowle. Report for 1911, app. 4, p. 161-342, 12 text figs.
- Same, Seguin to Point Isabel, Tex. By A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text figs.
- Triangulation along the east coast of Florida, and on the Florida Keys. By Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text figs.
- The Texas-California arc of primary triangulation. Special publication no. 11. (In press.)

HYDROGRAPHY.

- Report of Henry L. Whiting, on the special survey of Provincetown Harbor, Massachusetts. Report for 1867, app. 12, p. 149-157.
- Report upon surveys in the Merrimack River, made in 1867 by Henry Mitchell. Report for 1867, app. 14, p. 170-175, 1 map, sketch 2.
- Abstract of a paper read before the National Academy of Sciences, April 16, 1869, on the earthquake-wave of August 14, 1868. By J. E. Hilgard. Report for 1869, app. 13, p. 223, 234.
- On the probable effect of extended piers in modifying the channel facilities of San Francisco Bay, near Yerba Buena Island. By Henry Mitchell. Report for 1870, app. 18, p. 180, 181.
- Tidal researches. By William Ferrel. xiii+268 pp., 13 figs. 1874.
- Discussion of tides in New York Harbor. By William Ferrel. Report for 1875, app. 12, p. 194-221.
- Methods of registering tidal observations. By R. S. Avery. Report for 1876, app. 8, p. 180-142, 10 figs.
- Report concerning the location of a quay or pier line in the vicinity of the United States navy-yard at New York. By Henry Mitchell. Report for 1876, app. 11, p. 186-189, sketch 23.
- On tides and tidal action in harbors. By J. E. Hilgard. Reprinted from Smithsonian report for 1874. 22 pp. 1876.
- Description of an apparatus devised for observing currents in connection with the physical survey of the Mississippi River. Report by H. L. Marindin. Report for 1877, app. 9, p. 104-107, 2 figs.
- Description of an optical densimeter for ocean water. By J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig.
- Observations of the density of the waters of Chesapeake Bay and its principal estuaries. Report by Frederick Collins. Report for 1877, app. 14, p. 184-190, 2 figs.
- Physical hydrography of the Gulf of Maine. By Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig., 2 diags.
- Addendum to a report on a physical survey of the Delaware River. By Henry Mitchell. Report for 1879, app. 13, p. 199, 200, 1 diag.
- Comparison of the surveys of Delaware River in front of Philadelphia, 1843 and 1878. By H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diags.
- Report on comparison of surveys of Mississippi River in the vicinity of Cubitt's Gap. By H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag. (44).

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Report on the oyster beds of the James River, Virginia, and of Tangier and Pocomoke sounds, Maryland and Virginia. By Francis Winslow. Report for 1881, app. 11, p. 269-353, 7 pls., 3 maps, 15 diags. (illus. 39-63).
- Report on a new rule for currents in Delaware Bay and River. By Henry Mitchell. Report for 1881, app. 18, p. 464-469, 1 fig.
- Comparison of the survey of Delaware River of 1819, between Pettys and Tinicum islands, with more recent surveys. By Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diags. (sketches 41, 42, and 43).
- Study of the effect of river bends in the Lower Mississippi. By Henry Mitchell. Report for 1882, app. 16, p. 433-436, 1 diag. (sketch 44).
- Discussion of the tides of the Pacific coast of the United States. By William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diags. (sketches 45, 46, 47).
- Report on the Siemens electrical deep-sea thermometer. By J. R. Bartlett. (Accompanied by a description of the apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 figs., 2 diags. (Nos. 48, 49).
- The estuary of the Delaware. A report by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig., 1 diag. (No. 25). [See also Report for 1887, app. 13.]
- Report on the harmonic analysis of the tides at Sandy Hook. By William Ferrel. Report for 1883, app. 9, p. 247-251, 1 map (sketch 26).
- Physical hydrography of Delaware River and Bay. Comparison of recent with former surveys. By H. L. Marindin. Report for 1884, app. 12, p. 431-434, 2 diags. (sketches 22, 23).
- Description of a model of the depths of the sea in the Bay of North America and Gulf of Mexico. By J. E. Hilgard. Report for 1884, app. 17, p. 619-621, 1 map (illus. 25).
- Comparison of transverse sections in the Delaware River, between old navy-yard and east end of Pettys Island, for the years 1819, 1843, and 1878. By Henry L. Marindin. Report for 1885, app. 12, p. 487, 488.
- On the harmonic analysis of the tides at Governors Island, New York Harbor. By William Ferrel. Report for 1885, app. 13, p. 489-493, 1 map (illus. 35).
- Report on deep-sea current work in the Gulf Stream. By J. E. Pillsbury. Report for 1885, app. 14, p. 495-501, 1 pl., 2 maps, 8 diags.
- A report on Monomoy and its shoals. By Henry Mitchell and Charles O. Boutelle. Report for 1886, app. 8, p. 255-261, 2 maps.
- Report of changes in the shore line and beaches of Marthas Vineyard as derived from comparisons of recent with former surveys. By Henry L. Whiting. Report for 1886, app. 9, p. 263-266, 1 map (illus. 21).
- A report on the delta of the Delaware. By Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. (illus. 22).
- A report of Gulf Stream explorations—Observations of currents, 1886. By J. E. Pillsbury. Report for 1886, app. 11, p. 281-290, 6 diags. (plates 23 to 28) presenting curves of observations of currents in the Gulf Stream during 1885 and 1886.
- On the circulation of the sea through New York Harbor. A report by Henry Mitchell. Report for 1886, app. 13, p. 409-432, 3 figs., 3 diags. (illus. 34-39).
- On the movements of the sands at the eastern entrance to Vineyard Sound. By Henry Mitchell. Report for 1887, app. 6, p. 159-163, 1 map, 1 diag. (illus. 31, 32).
- Gulf Stream explorations—Observations of currents, 1887. By J. E. Pillsbury. Report for 1887, app. 8, p. 173-184, 2 maps, 7 diags. (illus. 34-42).
- Addendum to a report on the estuary of the Delaware. By Henry Mitchell. Report for 1887, app. 13, p. 269-273. [Supplementary to report for 1883, app. 8, p. 239-245.]
- Report on the results of the physical surveys of New York Harbor. By Henry Mitchell. Report for 1887, app. 15, p. 301-311, 1 fig., 6 diags. (illus. 44-49).
- Tide levels and flow of currents in New York Bay and Harbor. By Henry L. Marindin. Report for 1888, app. 9, p. 405-408, 12 maps.
- Same, abstract. Bull., no. 3, p. 7-12, 2 maps. 1888.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

- Encroachment of the sea upon the coast of Cape Cod, Massachusetts, as shown by comparative surveys.** By Henry L. Marindin. Report for 1889, app. 12, p. 403-407, 1 map.
- Cross-sections of the shore of Cape Cod between Chatham and the Highland light-house.** By Henry L. Marindin. Report for 1889, app. 13, p. 409-457, 1 map.
- Recent changes in the south inlet into Edgartown Harbor, Marthas Vineyard.** By Henry L. Whiting. Report for 1889, app. 14, p. 459, 460, 1 map.
- Gulf Stream explorations—Observations of currents, 1888 and 1889.** By J. E. Pillsbury. Report for 1889, app. 16, p. 467-477, 8 maps, 12 diags.
- Currents of New York Bay and Harbor.** Compiled by B. A. Colonna from the notes of a physical survey by H. L. Marindin. Bull., no. 8, p. 41-43. 2d ed. 1889.
- Report on the sounds and estuaries of North Carolina with reference to oyster culture.** By Francis Winslow. Bull., no. 10, p. 51-136, 2 maps, 1 diag. 1889.
- A syphon tide-gauge for the open seacoast.** By Henry L. Marindin. Bull., no. 12, p. 143-146, 1 diag. 1889.
- On the use of observations of currents for prediction purposes.** By John F. Hayford. Report for 1890, app. 14, p. 691-703.
- Comparison of the predicted with the observed times and heights of high and low water at Sandy Hook, New Jersey, during the year 1889.** A report by Alex. S. Christie of the results of an investigation made under his direction by John F. Hayford. Report for 1890, app. 15, p. 705-714, 2 diags.
- On the reduction of hydrometer observations of salt-water densities.** Submitted for publication, February 18, 1890, by O. H. Tittmann. Revised for republication, February 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277.
- On the changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by a comparison of surveys made between 1835, 1867, and 1890.** By Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps.
- Cross-sections of the shore of Cape Cod, Massachusetts, between the Cape Cod and Long Point light-houses.** By Henry L. Marindin. Report for 1891, pt. 2, app. 9, p. 289-341.
- On observations of currents with the direction-current meter in the Straits of Florida and in the Gulf of Mexico, 1891.** By E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl., 1 map, 7 diags.
- On the sounds and estuaries of Georgia with reference to oyster culture.** By J. C. Drake. Bull., no. 19, p. 179-209, 7 maps. 1891.
- Changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor, as shown by a comparison of surveys made between 1867 and 1890.** By H. L. Marindin. Bull., no. 24, p. 233-235. 1891.
- On the tides and currents in the harbor of Edgartown and in Katama Bay, Marthas Vineyard.** By Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diags.
- On the changes in the ocean shore lines of Nantucket Island, Massachusetts, from a comparison of surveys made in the years 1846 to 1887 and in 1891.** By Henry L. Marindin. Report for 1892, pt. 2, app. 6, p. 243-252, 1 map, 3 diags.
- Manual of tides. Part III. Some connections between harmonic and nonharmonic quantities, including applications to the reduction and prediction of tides.** By Rollin A. Harris. Report for 1894, pt. 2, app. 7, p. 125-262, 1 fig., 3 diags.
- Report on the changes in the depths on the bar at the entrance to Nantucket inner harbor, Massachusetts, between the years 1888 and 1893.** By H. L. Marindin. Report for 1895, app. 5, p. 347-354, 4 diags.
- Notes on the specific gravity of the waters of the Gulf of Mexico and the Gulf Stream.** By A. Lindenkohl. Report for 1895, app. 6, p. 355-369, 8 figs., 2 maps.
- Compilation of the most recent information relative to the harbors, anchorages, and dangers to navigation in the vicinity of Chatham and Peril straits and Cooks inlet, Alaska.** Arranged and compiled by Hugh Rodman. Report for 1896, app. 11, p. 373-393.

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

Notes relating to self-registering tide gauges as used by the U. S. Coast and Geodetic Survey. By J. F. Pratt. Report for 1897, app. 7, p. 313-318, 2 figs., 3 pls.

Problems in physiography, concerning salinity and temperature of the Pacific Ocean. By A. Lindenkohl. Report for 1898, app. 9, p. 463-473, 1 fig., 2 diag.

Alaska. Hydrographic notes and sailing directions relating to portions of Alaska from Dixon Entrance to Yakutat Bay, including reconnaissance surveys of Cordova Bay, Bucarelli Bay, and Red Fish Bay. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 87, p. 110-118, 3 maps. 1899.

Alaska. Hydrographic notes, sailing directions, and charts of surveys relating to the vicinity of Prince William Sound, Cook Inlet, Kodiak Island, and route from Unalaska to Chignik, through Unimak Pass and inside the Islands. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 38, p. 119-142, 6 maps. 1899.

Alaska. Predicted times of slack water at Seymour Narrows, Discovery Passage, British Columbia, and at Sergius Narrows, Peril Strait, Alaska, from May to December, 1899. Prepared from observations by E. K. Moore. Bull. no. 39, p. 143-150. 1899.

Channel and harbor sweep. Description by D. B. Wainwright. Report for 1903, app. 6, p. 1005-1010, 1 view.

Manual of tides. Part IVb. Cotidal lines for the world. By R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus.

Long wire sweep. By D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diag.

General instructions for coast surveys in the Philippine Islands. 92 pp., 15 figs. 1906.

Manual of tides. Part V. Currents, shallow-water tides, meteorological tides, and miscellaneous matters. By R. A. Harris. Report for 1907, app. 6, p. 231-546. 22 diag. 7 charts.

Survey of oyster bars, Anne Arundel County, Md. Description of boundaries and landmarks, and report of work of United States Coast and Geodetic Survey in cooperation with Maryland Shell Fish Commission. By C. C. Yates. 106 pp., 1 map. 1907.

Survey of oyster bars, Somerset County, Md. Description of boundaries and landmarks, and report of work of the United States Coast and Geodetic Survey in cooperation with the United States Bureau of Fisheries and the Maryland Shell Fish Commission. By C. C. Yates. 118 pp., map. 1908.

Same, Wicomico County, Md. By C. C. Yates. 54 pp., map. 1909.

Same, Worcester County, Md. By C. C. Yates. 67 pp., 1 map. 1909.

Same, Calvert County, Md. By C. C. Yates. 94 pp., 1 map. 1910.

Same, Charles County, Md. By C. C. Yates. 62 pp., 1 map. 1911.

Same, St. Marys County, Md. By C. C. Yates. 203 pp., 1 map. 1911.

Same, Baltimore County, Md. By C. C. Yates. 42 pp., 1 map. 1911.

Same, Kent County, Md. By C. C. Yates. 130 pp., 1 map. 1912.

Same, Queen Annes County, Md. By C. C. Yates. 176 pp., 1 map. 1912.

Description of long wire drag. By N. H. Heck. 21 pp., illus. 1910.

Table of depths for channels and harbors, coasts of the United States, including Porto Rico, the Hawaiian Islands, and the Philippine Islands. (Replaces Bull. no. 36.) 159 pp. 1910.

Arctic tides. By R. A. Harris. 103 pp., 3 charts. 1911.

COAST PILOTS.

These are a series of volumes covering the continental coasts of the United States, Porto Rico, and a portion of Alaska, containing descriptions of the coast and harbors, sailing directions, and general information, etc., for the use of mariners. They are corrected to date

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

COAST PILOTS—continued.

of issue as nearly as practicable, and supplements or new editions issued from time to time.

U. S. Coast Pilot: Atlantic coast. Parts I-II. From St. Croix to Cape Ann. 3d ed. 1911. 200 pp., 2 maps. 50 cents.

Same, Part III. From Cape Ann to Point Judith. 3d ed. 1912. 166 pp., 2 maps, 1 illus. 50 cents.

Same, Part IV. From Point Judith to New York. 5th ed. 1909. 212 pp., 3 maps, 1 illus. 50 cents.

Same, Part V. From New York to Chesapeake Bay entrance. 4th ed. 166 pp., 4 maps, 1 illus. 1909. 50 cents.

Same, Part VI. Chesapeake Bay and tributaries. 3d ed. 1907. 192 pp., 2 maps. 50 cents.

Same, Part VII. From Chesapeake Bay entrance to Key West. 3d ed. 1906. 223 pp., 3 maps, 3 illus. 50 cents.

Same, Part VIII. Gulf of Mexico from Key West to the Rio Grande. 3d ed. 1908. 177 pp., 4 illus. 50 cents.

U. S. Coast Pilot: Pacific coast. California, Oregon, and Washington. 2d ed. 1909. 251 pp., 5 maps, 6 illus. 50 cents.

Same, Alaska. Part I. Dixon entrance to Yakutat Bay, with inland passage from Juan de Fuca Strait to Dixon entrance. 5th ed. 1908. 239 pp., 9 pls., 5 charts. 50 cents.

U. S. Coast Pilot: West Indies. Porto Rico. 1906. 116 pp., 1 map, 1 chart, 14 illus. 50 cents.

Alaska. Coast Pilot notes from Yakutat Bay to Cook Inlet and Shellikof Strait. 2d ed. 82 pp. 1910.

Alaska. Coast Pilot notes on Bering Sea and the Arctic Ocean. 1908. 65 pp. (Replaces Bulletin No. 40.)

Hawaiian Islands Coast Pilot notes, Feb. 21. 1912. 57 pp. 1912.

TIDE TABLES.

These are issued annually and contain predictions for the ports of the United States, including Porto Rico, Alaska, Hawaii, and the Philippine Islands, and also predictions for the principal foreign ports:

Tide tables for the world. 50 cents.

Tide tables for the Atlantic coast of the United States, including Canada and the West Indies. (Reprinted from the Tide tables for the world.) 15 cents.

Tide tables for the Pacific coast of the United States. (Reprinted from the Tide tables for the world.) 10 cents.

CHART CATALOGUES.

These contain lists of the latest coast pilots, tide tables, sailing directions, miscellaneous maps and plans, and charts issued by the Survey:

Catalogue of charts, coast pilots, and tide tables. 1912. 228 pp., 86 text figs.

Catalogue of charts, sailing directions, and tide tables of the Philippine Islands. 1910. 54 pp.

SAILING DIRECTIONS FOR THE PHILIPPINE ISLANDS.

These contain descriptions of the coasts and harbors of the Philippine Islands, together with sailing directions for those coasts and harbors:

Philippine Islands: Sailing directions. Section I. North and west coasts of Luzon and adjacent islands from Cape Engaño to Manila Bay. 3d ed. 1906. 101 pp. (Supp. 1909. 5 pp.)

COAST AND GEODETIC SURVEY—HYDROGRAPHY—Continued.

SAILING DIRECTIONS FOR THE PHILIPPINE ISLANDS—continued.

- Philippine Islands: Sailing directions. Section II. Southwest and south coasts of Luzon and adjacent islands, between Manila and San Bernardino Strait. 4th ed. 1910. 102 pp.
- Same, Section III. Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 190 pp.
- Same, Section IV. Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 pp.
- Same, Section V. Coasts of Mindanao and adjacent islands. 3d ed. 1910. 185 pp.

NOTICE TO MARINERS.

These contain corrections that are to be applied to charts in order to keep them up to date. On January 1, 1908, the monthly Notice to Mariners, excepting those pertaining to the Philippine Islands, were, by direction of the Secretary of Commerce and Labor, consolidated with and made a part of the weekly Notice to Mariners issued by the Bureau of Lighthouses.

Notice to mariners. Philippine Islands. Issued monthly.

TOPOGRAPHY.

- Special report on the comparative progress and expenditure of the Coast Survey, in different years. Foreign surveys, etc. 18 pp. 1858.
- Type forms of topography, Columbia River. By E. Hergesheimer. Report for 1881, app. 7, p. 124-125, 7 figs., 1 map.
- Proceedings of the Topographical Conference held at Washington, D. C., January 18 to March 7, 1892. Report for 1891, pt. 2, app. 16, p. 565-746, 25 figs., 2 pls., 1 map, 5 diags.
- Subdivision 1. List of original topographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2209, inclusive. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2222, inclusive. Report for 1895, app. 11, p. 899-516.
- A plane table manual. By D. B. Wainwright. Report for 1905, app. 7, p. 289-342, 27 diags., 6 illus.

TERRESTRIAL MAGNETISM.

- New discussion of the distribution of the magnetic declination on the coast of the Gulf of Mexico, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^a
- New discussion of the distribution of the magnetic declination on the coast of Virginia, North Carolina, South Carolina, and Georgia, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 24, p. 250-259, 1 map.^a
- Development of Bessel's function for the effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.
- Report on the results from the observations made at the magnetical observatory, on Capitol Hill, Washington, D. C., between 1867 and 1869. By Charles A. Schott. Report for 1869, app. 9, p. 199-207.
- New investigation of the secular changes in the declination, the dip, and the intensity of the magnetic force, at Washington, D. C. By Charles A. Schott. Report for 1870, app. 14, p. 107-110.

^a Bound with 16, 17, 18, 19, 20, 21, and 25 of Report for 1861.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Contd.

On a chart of the magnetic declination in the United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400, 401, 1 map.

On the secular change of magnetic declination in the United States and at some foreign stations. By Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.

An inquiry into the variation of the compass off the Bahama Islands, at the time of the landfall of Columbus in 1492. By Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map (sketch 84).

Terrestrial magnetism. Collection of results for declination, dip, and intensity, from observations made by the United States Coast and Geodetic Survey between 1833 and 1882, July. By Charles A. Schott. Report for 1881, app. 9, p. 159-224.

Account and results of magnetic observations made under the direction of the United States Coast and Geodetic Survey in cooperation with the United States Signal Office, at the United States polar station Ooglaamle, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 figs., 1 map (illus. 84).

The geographical distribution and secular variation of the magnetic dip and intensity in the United States. By Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diags. (illus. 19-24).

Collection of some magnetic variations off the coasts of California and Mexico, observed by Spanish navigators in the last quarter of the eighteenth century. Communicated by George Davidson. Report for 1885, app. 7, p. 275-284.

The magnetic work of the Greely arctic expedition, 1881-1894. Abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210.

The value of the "Arcano del mare" with reference to our knowledge of the magnetic declination in the earlier part of the seventeenth century. By Charles A. Schott. Bull., no. 5, p. 25-28, 2 maps. 1888.

Secular variation in the position of the agonic line of the North Atlantic and of America, between the epochs 1500 and 1900 A. D. By Charles A. Schott. Bull., no. 6, p. 29-43, 3 maps. 1888.

Historical review of the work of the Coast and Geodetic Survey in connection with terrestrial magnetism. By Charles A. Schott. Bull., no. 7, p. 35-40, 4 maps. 1888.

The distribution of the magnetic declination in the United States for the epoch 1890. (2d ed.) By Charles A. Schott. Report for 1889, app. 11, p. 233-402, 3 maps, 1 diag.

The magnetic observations made on Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Bull., no. 20, 211-214. 1891. (Reprinted in Report for 1890, pt. 2, app. 5, p. 269-273.)

Results of the observations made at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part I. Results of the absolute measures of the direction and intensity of the earth's magnetic force. Discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part II. Results of the differential measures of the magnetic declination. Discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diags.

The secular variation and annual change of the magnetic force at stations occupied by E. D. Preston, in connection with the U. S. eclipse expedition to the west coast of Africa, in 1889-90, in charge of D. P. Todd. Discussion and report by C. A. Schott. Submitted for publication March 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-30.

Same, abstract. Bull., no. 23, p. 225-232. (1891.)

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Contd.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part III. Results of the differential measures of the horizontal intensity. Discussion and report by Charles A. Schott. Report for 1891, pt. 2, app. 4, p. 41-267, 10 diags.

On the magnetic observations made during Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Submitted for publication as a bulletin, December 12, 1890, and first published February 26, 1891. Discussion by C. A. Schott. Report for 1891, pt. 2, app. 5, p. 269-273.

Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part IV. Results of the differential measures of the vertical force component, and of the variations of dip and total force. Discussion and report by Charles A. Schott. Report for 1892, pt. 2, app. 7, p. 253-327, 2 diags.

Results of magnetic observations at stations in Alaska and in the northwest territory of the Dominion of Canada. Observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, in the years 1889, 1890, and 1891. Discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.

Distribution of the magnetic declination in Alaska and adjacent waters for the year 1895, and construction of an isogonic chart for the same epoch. By C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.

Same, abstract. Bull., no. 34, p. 127-134. (1895.)

The secular variation in direction and intensity of the earth's magnetic force in the United States and in some adjacent foreign countries. By Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diags.

The direction and intensity of the earth's magnetic force at San Francisco, Cal. By C. A. Schott. Bull., no. 33, p. 121-126. 1895.

Distribution of the magnetic declination in the United States for the epoch January 1, 1900. 3d ed. By Charles A. Schott. Report for 1896, app. 1, p. 147-235, 3 illus.

Distribution of the magnetic dip and the magnetic intensity in the United States for the epoch January 1, 1900. (2d ed.) By Charles A. Schott. Report for 1897, app. 1, p. 159-196, 3 maps.

Results of magnetic observations made in connection with the Greenland expedition of 1896, under charge of A. E. Burton. By G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag.

California, Bay of San Francisco. Magnetic ranges for determining the deviation of the compass, with short explanations of how to find the deviation and error of the compass. Arranged and compiled by J. C. Gilmore. Special publication no. 1. 7 pp., 5 pls., 1 map. 1898.

General report upon the magnetic survey of North Carolina, with a brief historical sketch of the fundamental phenomena of the earth's magnetism. By James B. Baylor and Daniel L. Hazard, under the direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pls., 2 maps.

The magnetic work of the United States Coast and Geodetic Survey. By L. A. Bauer. Report for 1899, app. 10, p. 939-952.

Magnetic survey of North Carolina. Values of the magnetic declination at the county seats from 1750 to 1910. By D. L. Hazard. Bull., no. 41, p. 1-12. 1901.

The magnetic observatories of the United States Coast and Geodetic Survey in operation on July 1, 1902. By L. A. Bauer and J. A. Fleming. Report for 1902, app. 5, p. 301-331, 8 views, 3 maps and sketches, 5 diags.

Magnetic dip and intensity observations, January, 1897, to June 30, 1902. By D. L. Hazard. With preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1902, and June 30, 1903. By L. A. Bauer. Report for 1903, app. 5, p. 931-1004.

COAST AND GEODETIC SURVEY—TERRESTRIAL MAGNETISM—Contd.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1903, and June 30, 1904. By L. A. Bauer. Report for 1904, app. 3, p. 207-255, 2 illus.

Same between July 1, 1904, and June 30, 1905. By L. A. Bauer. Report for 1905, app. 3, p. 105-192.

Same between July 1, 1905, and June 30, 1906. By L. A. Bauer. Report for 1906, app. 3, p. 105-210, 1 illus.

Distribution of the magnetic declination in the United States for January 1, 1905. By L. A. Bauer. Report for 1906, app. 4, p. 211-226, 1 map.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1906, and June 30, 1907. By R. L. Faris. Report for 1907, app. 5, p. 157-230.

Same between July 1, 1907, and June 30, 1908. By R. L. Faris. Report for 1908, app. 3, p. 69-165.

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Cheltenham, Md., 1901-1904. By D. L. Hazard. 206 pp., 56 illus. 1909.

Same, 1905 and 1906. By D. L. Hazard. 110 pp., 29 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. 93 pp., 14 figs. 1911.

Same, 1909 and 1910. By D. L. Hazard. 93 pp., 22 figs. 1912.

Results of observations made at the Coast and Geodetic Survey magnetic observatory near Honolulu, Hawaii, 1902-1904. By D. L. Hazard. 180 pp., 1 map, 5 illus., 47 figs. 1909.

Same, 1905 and 1906. By D. L. Hazard. 112 pp., 32 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. 95 pp., 11 figs. 1911.

Same, 1909 and 1910. By D. L. Hazard. 95 pp., 21 figs. 1912.

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Vieques, P. R., 1903-4. By D. L. Hazard. 70 pp., 1 illus., 1 fig. 1909.

Same, 1905 and 1906. By D. L. Hazard. 110 pp., 26 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. 98 pp., 21 figs. 1911.

Same, 1909 and 1910. (In press.)

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Sitka, Alaska, 1902-1904. By D. L. Hazard. 129 pp., 1 map, 2 illus., 49 figs. 1909.

Same, 1905 and 1906. By D. L. Hazard. 115 pp., 36 figs. 1910.

Same, 1907 and 1908. By D. L. Hazard. 94 pp., 23 figs. 1911.

Results of observations made at the Coast and Geodetic Survey magnetic observatory at Baldwin, Kans., 1901-1904. By D. L. Hazard. 138 pp. 1909.

Same, 1905 and 1906. By D. L. Hazard. 107 pp., 26 figs. 1910.

Same, 1907-1909. By D. L. Hazard. 114 pp., 30 figs. 1911.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1908, and June 30, 1909. By R. L. Faris. Report for 1909, app. 3, p. 75-149.

Same, between July 1, 1909, and June 30, 1910. By R. L. Faris. Report for 1910, app. 3, p. 73-141.

Distribution of the magnetic declination in Alaska and adjacent regions for 1910. By R. L. Faris. Report for 1909, app. 4, p. 151-179, 4 figs., 4 text figs., 1 map in pocket.

Principal facts of the earth's magnetism, and methods of determining the true meridian and the magnetic declination. (Reprinted from United States magnetic declination tables for 1902.) 99 pp., 1 map, 9 illus., 18 figs. 1909.

Directions for magnetic measurements. By D. L. Hazard. 131 pp., 10 text figs. 1911.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1910, and June 30, 1911. By R. L. Faris. Report for 1911, app. 3, p. 77-158.

Distribution of the magnetic declination in the United States for January 1, 1910, with isogonic chart and secular change tables. By R. L. Faris. Special publication no. 9. 14 pp., 1 map. 1911.

COAST AND GEODETIC SURVEY—Continued.

CHART CONSTRUCTION.

- A quincuncial projection of the sphere. By C. S. Peirce. Report for 1877, app. 15, p. 191, 192, 1 map.
- A treatise on projections. By Thomas Craig. Part I. Mathematical theory of projections. Part II. Construction of projections. 242 pp., 65 figs. 1882.
- Notes on an original manuscript chart of Bering's expedition of 1725-1730, and on an original manuscript chart of his second expedition; together with a summary of a journal of the first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version. By William Healey Dall. Report for 1890, app. 19, p. 759-774, 2 maps.
- Notes on an early chart of Long Island Sound and its approaches. By Charles Hervey Townshend. Report for 1890, app. 20, p. 775-777, 1 map.
- Tables for a polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 3d ed. [Replaces app. 6, Report for 1884 and Special publication no. 5.] 189 pp., 1 chart. 1910.
- Notes relative to the use of charts issued by the United States Coast and Geodetic Survey. By D. B. Wainwright. Special publication no. 6. 23 pp., 1 fig., 1 pl., 6 diag. 1900.

ALLIED SUBJECTS.

- Report on the Nicaragua route for an interoceanic ship-canal, with a review of other proposed routes; made by Maximilian Von Sonnenstern to the minister of public works of Nicaragua. Translated for the U. S. Coast Survey. 22 pp., 1 map. 1874.
- Hypsometric formula based upon thermodynamic principles. By Chas. A. Schott. Report for 1876, app. 19, p. 388-390.*
- A statement concerning the relation of the lawful standards of measure of the United States to those of Great Britain and France. By J. E. Hilgard. Report for 1876, app. 22, p. 402-406.
- Report on the blue clay of the Mississippi River. By George Little. Report for 1880, app. 12, p. 145-171, sketch 48.
- On the length of a nautical mile. By J. E. Hilgard. Report for 1881, app. 12, p. 354, 356.
- General properties of the equations of steady motion. By Thos. Craig. 26 pp. 1881.
- Historical sketch of the U. S. Coast and Geodetic Survey. 8 pp. 1884.
- A plea for light on St. George's bank. By Henry Mitchell. Report for 1885, app. 11, p. 483-485.
- An examination of some of the early voyages of discovery and exploration on the Northwest coast of America from 1539 to 1603. By George Davidson. Report for 1886, app. 7, p. 155-253, 1 map (illus. 18).
- Resources of and developments in Alaska. By George Davidson. Bull., no. 4, p. 13-24. 1888.
- Verification of weights and measures. By O. H. Tittman. Bull., no. 15, p. 157, 158, 1 diag. 1889.
- The relation between the metric standards of length of the U. S. Coast and Geodetic Survey and the U. S. Lake Survey. By C. A. Schott and O. H. Tittmann. Bull., no. 17, p. 165-173. 1890.
- Report in relation to a portion of boundary line in dispute between the States of Maryland and Virginia. By Henry L. Whiting. Report for 1890, app. 11, p. 621-623.
- On an approximate method for computing probable error. By Chas. H. Kummell. Report for 1890, app. 13, p. 685-687.
- The determination, by the method of least squares, of the relation between two variables, connected by the equation $Y=AX+B$, both variables being liable to errors of observation. By Mansfield Merriman, Ph. D. Report for 1890, app. 13, p. 687-690.

* Bound with appendixes 16, 17, and 18 of Report for 1876.

COAST AND GEODETIC SURVEY—ALLIED SUBJECTS—Continued.

- On the relation of the yard to the meter. By O. H. Tittmann. Report for 1890, app. 16, p. 715-720. [This paper is a second edition of Bulletin 9, revised by the author, with statement of later comparisons, confirming his results.]
- On the least square adjustment of weighings. A report prepared by direction of O. H. Tittmann. By John F. Hayford. Report for 1892, app. 10, p. 515-527.
- State laws authorizing officers of the U. S. Coast and Geodetic Survey to enter upon lands within State limits for the purposes of the Survey. Report for 1893, app. 1, p. 1-18.
- Fundamental standards of length and mass. Report for 1893, pt. 2, app. 6, p. 165-172. [This paper was first published as Bulletin 26, and was republished to give it a more permanent form. Appended to it will be found a third edition of the tables for converting customary and metric weights and measures.]
- Units of electrical measure. Report for 1893, pt. 2, app. 7, p. 173-176.
- Part I. A historical account of the boundary line between the States of Pennsylvania and Delaware. Part II. Detailed account of work on the Pennsylvania and Delaware boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig., 3 maps, 2 facsimiles.
- On the preparation and arrangement of the exhibit of the U. S. Coast and Geodetic Survey at the World's Columbian Exposition. By D. B. Wainwright. Report for 1893, app. 10, p. 425-439.
- Units of electrical measure. Approved for publication December 27, 1893. Bull., no. 30, p. 99-104. 1894.
- Legal units of electrical measure in the United States. Approved August 12, 1894. Bull., no. 31, p. 105-108. 1894.
- General statement of the administration and work of the Coast and Geodetic Survey, with historical sketch from 1807 to 1898. Extract from report of Superintendent for the fiscal year 1897-98. By H. S. Pritchett. p. 21-28, 1 sketch. 1899.
- Methods and results of the U. S. Coast and Geodetic Survey. [Leaflets printed for distribution at the Pan-American Exposition, Buffalo, N. Y.] Spanish edition. Issued separately. 1901.
- Table for converting customary and metric weights and measures. 4 pp. 1900.
- List and catalogue of the publications issued by the U. S. Coast and Geodetic Survey, 1816-1902. Reprint, with Supplement, 1903-1908. By E. L. Burchard and R. M. Brown. 237, 44 pp. 1908.
- Same. Supplement to August, 1908, inclusive. 1908.
- General instructions for the field work of the Coast and Geodetic Survey. 127 pp. 1908.
- Coast and Geodetic Survey in Alaska. 8 pp. 1909.
- The work of the Coast and Geodetic Survey. 2d ed. 47 pp., 5 illus., 1 diag. 1909.

BUREAU OF CORPORATIONS.

- Annual Report of the Commissioner of Corporations for 1911. 6 pp. 1912. [There are also on hand a limited supply of each of the annual reports of the Commissioner from 1904 to 1910, inclusive.]
- Report of the Commissioner of Corporations on the beef industry. Mar. 8, 1905. xxxvi+315 pp., 15 diags. 1905.
- Report of the Commissioner of Corporations on the transportation of petroleum. May 2, 1906. xxvii+512 pp., 40 maps and diags. 1906.
- Statement of the Commissioner of Corporations in answer to the allegations of the Standard Oil Company concerning its conviction at Chicago for accepting concessions on shipments over the Chicago and Alton Railroad. A discussion of the allegations in the pamphlet entitled "From the directors of the Standard Oil Company to its employees and stockholders," Dec. 30, 1907. 11 pp. 1907.
- Report of the Commissioner of Corporations on the petroleum industry. Part I. Position of the Standard Oil Company in the petroleum industry. May 20, 1907. xxi+896 pp., 8 maps. 1907.

BUREAU OF CORPORATIONS—Continued.

- Report of the Commissioner of Corporations on the petroleum industry. Part II. Prices and profits. Aug. 5, 1907. xiv+965 pp., 3 maps, 71 diags. 1907.
- Report of the Commissioner of Corporations on cotton exchanges. Part I. Methods of establishing grade differences for future contracts. May 4, 1908. xxi+369 pp., 11 charts. 1908. [Also Summary.]
- Same, Part II. Classification of cotton. Part III. Range of grades deliverable on contracts. May 29, 1908. xvi+217 pp., 1 illus. 1908. [Also Summary.]
- Same, Part IV. Effect of future contracts on prices of cotton. Part V. Influence of producers' organizations on prices of cotton. Dec. 6, 1909. xxii+362 pp., 24 charts and diags. 1909. [Also Summary.]
- Report of the Commissioner of Corporations on the tobacco industry. Part I. Position of the tobacco combination in the industry. Feb. 25, 1909. xxiii+489 pp. 1909.
- Same, Part II. Capitalization, investment, and earnings. Sept. 25, 1911. xxi+343 pp. 1911.
- Taxation of corporations. Part I. New England. Report on the system of taxing manufacturing, mercantile, transportation, and transmission corporations in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. May 17, 1909. xiv+156 pp. 1909.
- Same, Part II. Middle Atlantic States [New York, New Jersey, Pennsylvania, Delaware, Maryland, and in the District of Columbia]. June 6, 1910. xiv+115 pp. 1910.
- Same, Part III. Eastern Central States [Ohio, Indiana, Illinois, Michigan, and Wisconsin.] July 31, 1911. x+109 pp. 1911.
- Report of the Commissioner of Corporations on transportation by water in the United States. Part I. General conditions of transportation by water. July 12, 1909. xviii+614 pp., 1 map. 1909.
- Same, Part II. Water-borne traffic. July 19, 1909. xxiv+402 pp., 5 maps. 1909.
- Same, Part III. Water terminals. Sept. 28, 1910. xxii+436 pp., 18 charts and diags. 1910.
- Summary of report of the Commissioner of Corporations on the lumber industry. Part I. Standing timber. Feb. 13, 1911. 38 pp., 1 chart. 1911. [Full report in press.]
- Report of the Commissioner of Corporations on the steel industry. Part I. Organization, investment, profits, and position of United States Steel Corporation. July 1, 1911. xxiv+422 pp. 1911. [Also Summary.]
- Same, Part II. Cost of production—Preliminary report. Jan. 22, 1912. xviii+144 pp. 1912.
- Report of the Commissioner of Corporations on water-power conditions in the United States. Part I. Physical conditions and economic aspects of water power. Part II. Concentration of ownership and control. Part III. Water power and the public. Mar. 14, 1912. xx+220 pp., 16 maps and charts. 1912.
- Report of the Commissioner of Corporations on cotton tare. (In press.)

BUREAU OF FISHERIES.

The publications of the Bureau of Fisheries are now issued under a plan somewhat different from that formerly followed.

Bound volumes are no longer distributed. The Annual Report now consists of only a brief administrative report of the Commissioner, in pamphlet form. The papers formerly published as appendices to the report of the Commissioner, with it constituting the Annual Report volume, are now issued as small documents independent of any other publication. The papers composing the Bulletin, while still forming an annual volume with continuous pagination, are to be had only as separates, for which, however, there will be issued a general title-page, table of contents, and index at the end of each year.

BUREAU OF FISHERIES—Continued.

In the following pages are listed, by serial numbers, all of the pamphlets now available.

Doc. No.

142. Notes on the fishes from the lowlands of Georgia, with a description of a new species (*Opsopoeodus bollmani*). By Charles H. Gilbert. Bulletin, vol. viii, 1888, p. 225-229. 1891.
209. Recent experiments in sturgeon hatching on the Delaware River. By Bashford Dean. Bulletin, vol. xiii, 1893, p. 335-339, 1 text fig. 1894.
303. The fishes of the Neuse River Basin. By Barton W. Evermann and Ulysses O. Cox. Bulletin, vol. xv, 1895, p. 303-310. 1896.
309. A review of the history and results of the attempt to acclimatize fish and other water animals in the Pacific States. By Hugh M. Smith. Bulletin, vol. xv, 1895, p. 379-472, pl. 73-83. 1896.
312. Report upon ichthyological investigations in western Minnesota and eastern North Dakota. By Albert J. Woolman. Report for 1893, p. 343-373, pl. 19. 1896.
322. Description of a closing tow net for submarine use at all depths. By C. H. Townsend. Report for 1894, p. 279-282, pl. 9, 10. 1896.
323. The whitefishes of North America. By Barton W. Evermann and Hugh M. Smith. Report for 1894, p. 283-324, 1 text fig., pl. 11-28. 1896.
326. The ichthyological collections of the U. S. Fish Commission steamer *Albatross* during the years 1890 and 1891. By Charles H. Gilbert. Report for 1893, p. 393-476, pl. 20-35. 1896.
328. A report upon the fishes of southwestern Minnesota. By Ulysses O. Cox. Report for 1894, p. 605-616. 1896.
333. Notes on Biscayne Bay, Florida, with reference to its adaptability as the site of a marine hatching and experiment station. By Hugh M. Smith. Report for 1895, p. 169-191. 1896.
338. Report of the representatives of the U. S. Fish Commission at the Cotton States and International Exposition at Atlanta, Ga., in 1895. By W. de C. Ravenel. Report for 1896, p. 147-167, 3 text fig., pl. 11-21. 1897.
339. Notes on the extension of the recorded range of certain fishes of the United States coast. By Hugh M. Smith and William C. Kendall. Report for 1896, p. 169-176. 1897.
340. Notes on the food of four species of the cod family. By William C. Kendall. Report for 1896, p. 177-186. 1897.
343. Report of a survey of the oyster regions of St. Vincent Sound, Apalachicola Bay, and St. George Sound, Florida. By Franklin Swift. Report for 1896, p. 187-221, pl. 21. 1897.
346. Artificial propagation of the Atlantic salmon, rainbow trout, and brook trout. Manual of Fish Culture, p. 17-90, 14 text fig., pl. 11-29. 1900.
347. Artificial propagation of the black bass, crappies, and rock bass. Manual of Fish Culture, p. 147-163, 2 text fig., pl. 47-50. 1900.
349. Oysters and methods of oyster culture, with notes on clam culture. By H. F. Moore. Manual of Fish Culture, p. 283-340, 6 text fig., pl. i-xviii. 1900.
355. Report of observations made on board the U. S. Fish Commission steamer *Albatross* during the year ending June 30, 1896. Report for 1896, p. 357-386. 1897.
356. Observations upon the herring and herring fisheries of the northeast coast, with special reference to the vicinity of Passamaquoddy Bay. By H. F. Moore. Report for 1896, p. 387-442, pl. 60-62. 1897.
357. The salmon fishery of Penobscot Bay and River in 1895 and 1896. By Hugh M. Smith. Bulletin, vol. xvii, 1897, p. 113-124, pl. 4 and 5. 1898.
359. Notes on the halibut fishery of the northwest coast in 1896. By A. B. Alexander. Bulletin, vol. xvii, 1897, p. 141-144. 1898.
366. The importance of extended scientific investigation. By H. C. Bumpus. Bulletin, vol. xvii, 1897, p. 177-180. 1898.

BUREAU OF FISHERIES—Continued.

Doc. No.

367. The utility of a biological station on the Florida coast in its relations to the commercial fisheries. By S. E. Meek. Bulletin, vol. xvii, 1897, p. 181-183. 1898.
376. The Hudson River as a salmon stream. By A. Nelson Cheney. Bulletin, vol. xvii, 1897, p. 247-251. 1898.
379. The restricted inland range of shad due to artificial obstructions, and its effect upon natural reproduction. By Charles H. Stevenson. Bulletin, vol. xvii, 1897, p. 265-271. 1898.
393. Possibilities for an increased development of Florida's fishery resources. By John N. Cobb. Bulletin, vol. xvii, 1897, p. 349-351. 1898.
399. Report on mackerel investigations in 1897. By J. Percy Moore. Report for 1898, p. 1-22. 1899.
400. Reports on fishes obtained by the steamer *Albatross* in the vicinity of Santa Catalina Island and Monterey Bay. By Charles H. Gilbert. Report for 1898, p. 23-29, pl. 1 and 2. 1899.
401. Notes on the extent and condition of the alewife fisheries of the United States in 1896. By Hugh M. Smith. Report for 1898, p. 31-43. 1899.
403. The shad fisheries of the Atlantic coast of the United States. By Charles H. Stevenson. Report for 1898, p. 101-269. 1899.
404. List of fishes collected at the Revillagigedo Archipelago and neighboring islands. By David Starr Jordan and Richard Crittenden McGregor. Report for 1898, p. 273-284, pl. 4-7. 1899.
405. Report on investigations by the U. S. Fish Commission in Mississippi, Louisiana, and Texas in 1897. By Barton W. Evermann. Report for 1898, p. 285-310, pl. 8-36. 1899.
407. Report upon exhibit of the U. S. Fish Commission at the Tennessee Centennial Exposition in 1897. By W. de C. Ravenel. Report for 1898, p. 329-339, pl. 37. 1899.
409. List of fishes known to inhabit the waters of the District of Columbia and vicinity. By Hugh M. Smith and Barton A. Bean. Bulletin, vol. xviii, 1898, p. 179-187. 1899.
410. Notes on a collection of tide-pool fishes from Kadiak Island in Alaska. By Cloudsley Rutter. Bulletin, vol. xviii, 1898, p. 189-192. 1899.
411. The southern spring mackerel fishery of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 193-271. 1899.
412. Notice of a filefish new to the fauna of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 273-278, pl. 64. 1899.
415. The peripheral nervous system of the bony fishes. By C. Judson Herrick. Bulletin, vol. xviii, 1898, p. 315-320, 1 text fig. 1899.
416. The reappearance of the tilefish. By Hermon C. Bumpus. Bulletin, vol. xviii, 1898, p. 321-333. 1899.
419. Check list of the fishes of Florida. By Barton W. Evermann and William C. Kendall. Report for 1899, p. 35-103. 1899.
422. An inquiry into the feasibility of introducing useful marine animals into the waters of Great Salt Lake. By H. F. Moore. Report for 1899, p. 229-250, pl. 7. 1899.
423. A review of the fisheries in the contiguous waters of the State of Washington and British Columbia. By Richard Rathbun. Report for 1899, p. 251-350, pl. 8-16. 1899.
425. Notes on the tide-pool fishes of California, with a description of four new species. By Arthur White Greeley. Bulletin, vol. xix, 1899, p. 7-20, 5 text fig. 1899.
426. The synaptas of the New England coast. By Hubert Lyman Clark. Bulletin, vol. xix, 1899, p. 21-31, pl. 10 and 11. 1899.
427. Descriptions of new genera and species of fishes from Porto Rico. By Barton Warren Evermann and Millard Caleb Marsh. Report for 1899, p. 351-362. 1899.
428. Descriptions of two new species of darters from Lake Maxinkuckee, Indiana. By Barton Warren Evermann. Report for 1899, p. 363-367. 1900.

BUREAU OF FISHERIES—Continued.

Doc. No.

429. The sturgeon fishery of Delaware River and Bay. By John N. Cobb. Report for 1899, p. 369-380, 2 text fig., pl. 18-21. 1900.
433. Descriptions of new species of fishes from the Hawaiian Islands belonging to the families of Labridæ and Scaridæ. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 45-65, 22 text fig. 1900.
434. Rotatoria of the United States, with especial reference to those of the Great Lakes. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 67-104, pl. 14-22. 1901.
435. A report of work on the Protozoa of Lake Erie, with especial reference to the laws of their movements. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 105-114. 1901.
436. Notes on a collection of fishes from the rivers of Mexico, with description of 20 new species. By David Starr Jordan and John O. Snyder. Bulletin, vol. xix, 1899, p. 115-147, 22 text fig. 1900.
438. Some chemical changes in the developing fish egg. By P. A. Levene. Bulletin, vol. xix, 1899, p. 153-155. 1900.
439. The free-swimming copepods of the Woods Hole region. By William Morton Wheeler. Bulletin, vol. xix, 1899, p. 157-192, 30 text fig. 1900.
442. On the movements of certain lobsters liberated at Woods Hole. By Hermon C. Bumpus. Bulletin, vol. xix, 1899, p. 225-230, pl. 27. 1900.
444. Report of a dredging expedition off the southern coast of New England, September, 1899. By Freeland Howe, jr. Bulletin, vol. xix, 1899, p. 237-240. 1900.
446. Fish parasites collected at Woods Hole in 1898. By Edwin Linton. Bulletin, vol. xix, 1899, p. 267-304, pl. 33-43. 1900.
447. Biological notes, No. 1. Bulletin, vol. xix, 1899, p. 305-310. 1900.
448. The skeleton of the black bass. By R. W. Shufeldt. Bulletin, vol. xix, 1899, p. 311-320, 8 text fig., pl. 44. 1900.
449. The chemical composition of the subdermal connective tissue of the ocean sunfish. By Erik H. Green. Bulletin, vol. xix, 1899, p. 321-324. 1900.
452. A method of recording egg development, for use of fish-culturists. By Claudius Wallich. Report for 1900. p. 185-194, pl. 1. 1900.
455. The hydroids of the Woods Hole region. By C. C. Nutting. Bulletin, vol. xix, 1899, p. 325-386, 106 text fig. 1901.
456. Description of 15 new species of fishes from the Hawaiian Islands. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 387-404, 16 text fig. 1901.
457. Parasites of fishes of the Woods Hole region. By Edwin Linton. Bulletin, vol. xix, 1899, p. 405-492, pl. i-xxxiv. 1901.
458. The Mollusca of Porto Rico. By W. H. Dall and C. T. Simpson. Bulletin, vol. xx, 1900, pt. 1, p. 351-524, pl. 53-58. 1901.
459. The Brachyura and Macrura of Porto Rico. By Mary J. Rathbun. Bulletin, vol. xx, 1900, pt. 2, p. 1-127 + *129-137, 26 text fig., pl. 1 and 2. 1901.
460. The Anomuran collections made by the *Fish Hawk* expedition to Porto Rico. By J. E. Benedict. Bulletin, vol. xx, 1900, pt. 2, p. 129-148, pl. 3-6. 1901.
461. The Stomatopoda of Porto Rico. By R. P. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 149-160, 13 text fig. 1901.
462. Report on Porto Rican Isopoda. By H. F. Moore. Bulletin, vol. xx, 1900, pt. 2, p. 161-176, pl. 7-11. 1901.
463. The Cirripedia collected near Porto Rico by the *Fish Hawk* expedition in 1898-99. By M. A. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 177-180. 1901.
464. The polychaetous annelids of Porto Rico. By A. L. Treadwell. Bulletin, vol. xx, 1900, pt. 2, p. 181-210, 78 text fig. 1901.
465. Descriptions of two new leeches from Porto Rico. By J. Percy Moore. Bulletin, vol. xx, 1900, pt. 2, p. 211-222, pl. 12-13. 1901.
466. The nemerteans of Porto Rico. By Wesley R. Coe. Bulletin, vol. xx, 1900, pt. 2, p. 223-229. 1901.
467. The echinoderms of Porto Rico. By H. L. Clark. Bulletin, vol. xx, 1900, pt. 2, p. 231-263, pl. 14-17. 1901.

BUREAU OF FISHERIES—Continued.

Doc. No.

468. The Alcyonaria of Porto Rico. By C. W. Hargitt and C. G. Rogers. Bulletin, vol. xx, 1900, pt. 2, p. 265-287, pl. i-iv. 1901.
470. Actinaria from the vicinity of Porto Rico. By J. E. Duerden. Bulletin, vol. xx, 1900, pt. 2, p. 321-374, pl. A and i-xxi. 1901.
471. The sponges collected in Porto Rico in 1899 by the U. S. Fish Commission steamer *Fish Hawk*. By H. V. Wilson. Bulletin, vol. xx, 1900, pt. 2, p. 375-411. 1901.
472. Dredging and other records of the U. S. Fish Commission steamer *Albatross*, with bibliography relative to the work of the vessel. Compiled by C. H. Townsend. Report for 1900, p. 387-562, pl. i-vii. 1901.
474. Biological notes, No. 2, from biological laboratory at Woods Hole. Bulletin, vol. xxi, 1901, p. 27-33. 1901.
475. Description of a new oceanic fish found off southern New England. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 35-36, 1 text fig. 1901.
476. The egg and development of the conger eel. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 37-44, 15 text fig. 1901.
477. Investigations into the history of the young squeteague. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 45-51, 2 text fig. 1901.
478. A new isopod parasitic on the hermit crab. By Millet T. Thompson. Bulletin, vol. xxi, 1901, p. 53-56, pl. 9-10. 1901.
479. The plants of western Lake Erie, with observations on their distribution. By A. J. Pieters. Bulletin, vol. xxi, 1901, p. 57-79, 11 text fig., pl. 11-20. 1901.
480. The leptocephalus of the American eel and other American leptocephali. By C. H. Eigenmann and C. H. Kennedy. Bulletin, vol. xxi, 1901, p. 81-92, 14 text fig. 1901.
483. Notes on the fishes and mollusks of Lake Chautauqua, New York. By B. W. Evermann and E. L. Goldsborough. Report for 1901, p. 169-175. 1902.
484. The foraminifera of Porto Rico. By James M. Flint. Bulletin, vol. xx, pt. 2, 1900, p. 415-416. 1901.
485. Description of a new species of blenny from Japan. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 93-94, 1 text fig. 1902.
486. List of species of fishes known to occur in the Great Lakes or their connecting waters. By Barton Warren Evermann. Bulletin, vol. xxi, 1901, p. 95-96. 1902.
491. Notes on the tagging of four thousand adult cod at Woods Hole, Mass. By Hugh M. Smith. Report for 1901, p. 193-208. 1902.
492. Notes on the silversides of the genus *Menidia* of the east coast of the United States, with descriptions of two new subspecies. By W. C. Kendall. Report for 1901, p. 241-267, 6 text fig. 1902.
493. Note on the Scotch methods of smoking haddocks. By Hugh M. Smith. Report for 1901, p. 269-271. 1902.
494. Notes on the fishes of Lake Ontario. An annotated list of the fishes known to occur in Lake Champlain and its tributary waters. An annotated list of the fishes known to occur in the St. Lawrence River. By B. W. Evermann and W. C. Kendall. Report for 1901, p. 209-240. 1902.
495. A report on fishes collected in Mexico and Central America, with notes and descriptions of five new species. By B. W. Evermann and E. L. Goldsborough. Bulletin, vol. xxi, 1901, p. 137-159, 8 text fig. 1902.
496. The organic constituents of the scales of fish. By E. H. Green and R. W. Tower. Bulletin, vol. xxi, 1901, p. 97-102. 1902.
497. The reactions of copepods to various stimuli and the bearing of this on daily depth migrations. By G. H. Parker. Bulletin, vol. xxi, 1901, p. 103-123. 1902.
498. The gas in the swim-bladder of fishes. Biliary calculi in the squeteague. By R. W. Tower. Bulletin, vol. xxi, 1901, p. 125-135, pl. xxi. 1902.
499. Description of a new species of shad (*Alosa ohlensis*), with notes on other food-fishes of the Ohio River. By Barton Warren Evermann. Report for 1901, p. 273-288. 1902.

BUREAU OF FISHERIES—Continued.

Doc. No.

500. The reproductive period in the lobster. By Francis H. Herrick. Bulletin, vol. xxi, 1901, p. 161-166, 5 text fig. 1902.
501. Notes on five food-fishes of Lake Buhl, Luzon, Philippine Islands. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 167-171, pl. 22. 1902.
502. Marine protozoa from Woods Hole. By Gary N. Calkins. Bulletin, vol. xxi, 1901, p. 413-468, 69 text fig. 1902.
503. Notes on a species of barnacle (*Dichelaspis*) parasitic on the gills of edible crabs. By Robert E. Coker. Bulletin, vol. xxi, 1901, p. 399-412, 14 text fig. 1902.
505. Notes on the fisheries of the Pacific coast in 1899. By W. A. Wilcox. Report for 1901, p. 501-574, pl. 28-29. 1902.
507. Statistics of the fisheries of the Mississippi River and tributaries [for 1899]. Report for 1901, p. 659-740. 1902.
508. The Pan-American Exposition. Report of representative of the U. S. Fish Commission. By W. de C. Ravenel. Report for 1901, p. 289-351, pl. 6-20. 1902.
509. Notes on the boats, apparatus, and fishing methods employed by the natives of the South Sea Islands, and the results of fishing trials by the *Albatross*. By A. B. Alexander. Report for 1901, p. 741-829, 36 text fig., pl. 30-37. 1902.
511. Observations on the herring fisheries of England, Scotland, and Holland. By Hugh M. Smith. Bulletin, vol. xxii, 1902, p. 1-16, 1 text fig., pl. 1-2. 1903.
514. Hearing and allied senses in fishes. By G. H. Parker. Bulletin, vol. xxii, 1902, p. 45-64, pl. 9. 1903.
515. Natural history of the quinnat salmon. A report on investigations in the Sacramento River, 1896-1901. By Cloudsley Rutter. Bulletin, vol. xxii, 1902, p. 65-141, 7 text fig., pl. 10-18. 1903.
516. Notes on fishes from streams and lakes of northeastern California not tributary to the Sacramento Basin. By Cloudsley Rutter. Bulletin, vol. xxii, 1902, p. 145-148, 2 text fig. 1903.
518. The destruction of trout fry by hydra. By A. E. Beardsley. Bulletin, vol. xxii, p. 157-160. 1903.
519. Artificial propagation of the salmon of the Pacific coast. Manual of Fish Culture, p. 1-15, pl. 3-10. 1900.
520. Artificial propagation of the lake trout, grayling, and whitefish. Manual of Fish Culture, p. 91-120, pl. 30-39. 1900.
521. Artificial propagation of the shad and pike perch. Manual of Fish Culture, p. 121-145 and 165-179. 5 text fig., pl. 40-46 and 51-52. 1900.
522. Artificial propagation of marine species of fishes. Manual of Fish Culture, p. 195-238, pl. 54-63. 1904.
523. Descriptions of new genera and species of fishes from the Hawaiian Islands. By D. S. Jordan and B. W. Evermann. Bulletin, vol. xxii, 1902, p. 161-208. 1903.
526. The freshwater fishes of western Cuba. By Carl H. Eigenmann. Bulletin, vol. xxii, 1902, p. 211-236, 17 text fig., pl. 19-21. 1903.
529. The plankton algae of Lake Erie, with special reference to the Chlorophyceæ. By Julia W. Snow. Bulletin, vol. xxii, 1902, p. 369-394, pl. i-iv. 1903.
530. Description of a new species of darter from Tippecanoe Lake. By William J. Moenkhaus. Bulletin, vol. xxii, 1902, p. 395-398. 1903.
531. Notes on some freshwater fishes from Maine. By W. C. Kendall. Bulletin, vol. xxii, 1902, p. 363-368, 5 text fig. 1903.
533. A more complete description of *Bacterium truttæ*. By M. C. Marsh. Bulletin, vol. xxii, 1902, p. 411-416, pl. i-ii. 1903.
534. Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. By Oliver P. Jenkins. Bulletin, vol. xxii, 1902, p. 417-511, 50 text fig., pl. i-iv. 1903.

BUREAU OF FISHERIES—Continued.

Doc. No.

539. The fisheries and fish trade of Porto Rico. By W. A. Wilcox. Report for 1902, p. 367-395. 1903.
541. Records of dredging and other collecting stations of the U. S. Fish Commission steamer *Albatross* in 1901 and 1902. Report for 1902, p. 397-432. 1903.
542. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer *Albatross*. By Harriet Richardson. Bulletin, vol. xxiii, 1903, pt. iii, p. 47-54. 1903.
544. Notes on a porpoise of the genus *Prodelphinus* from the Hawaiian Islands. By Frederick W. True. Bulletin, vol. xxiii, 1903, pt. 3, p. 41-45, pl. 1-2. 1903.
546. A catalogue of the shore fishes collected by the steamer *Albatross* about the Hawaiian Islands in 1902. By John Otterbein Snyder. Bulletin, vol. xxii, 1902, p. 513-538, 52 text fig., pl. 1-13. 1904.
547. Notes on fishes collected in the Tortugas Archipelago. By David Starr Jordan. Bulletin, vol. xxii, 1902, p. 539-544, pl. 1-2. 1904.
549. Records of the dredging and other collecting and hydrographic stations of the U. S. Fisheries steamer *Albatross* in 1903. By Franklin Swift, compiled by Harry C. Fassett. Report for 1903, p. 123-134. 1904.
550. The echinoderms of the Woods Hole region. By Hubert Lyman Clark. Bulletin, vol. xxii, 1902, p. 545-576, pl. 1-14. 1904.
551. List of fishes dredged by the steamer *Albatross* off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridae. By David Starr Jordan and Edwin Chapin Starks. Bulletin, vol. xxii, 1902, p. 577-630, pl. i-vii. 1904.
555. The commercial fisheries of the interior lakes and rivers of New York and Vermont. By John N. Cobb. Report for 1903, p. 225-246. 1904.
558. The medusae of the Woods Hole region. By Charles W. Hargitt. Bulletin, vol. xxiv, 1904, p. 21-79, 30 text fig., pl. i-vii. 1904.
559. The osteology and immediate relations of the tilefish, *Lopholatilus chamaeleonticeps*. By Frederick A. Lucas. Bulletin, vol. xxiv, 1904, p. 81-86, 3 text fig. 1904.
560. The blood vascular system of the tilefish, *Lopholatilus chamaeleonticeps*. By C. F. Silvester. Bulletin, vol. xxiv, 1904, p. 87-114, 15 text fig., pl. i. 1904.
561. The fish parasites of the genus *Argulus* found in the Woods Hole region. By Charles B. Wilson. Bulletin for 1904, p. 115-131, 12 text fig. 1904.
562. The seaweed industries of Japan. The utilization of seaweeds in the United States. By Hugh M. Smith. Bulletin, vol. xxiv, 1904, p. 133-181, 31 text fig., pl. i-v. 1905.
563. The function of the lateral-line organs in fishes. By G. H. Parker. Bulletin, vol. xxiv, 1904, p. 183-207. 1905.
564. Isopods from the Alaska salmon investigation. By Harriet Richardson. Bulletin, vol. xxiv, 1904, p. 209-221, 10 text fig. 1905.
565. List of fishes collected in Boulder County, Colo., with description of a new species of *Leuciscus*. By Chancey Juday. Bulletin, vol. xxiv, 1904, p. 223-227, 1 text fig. 1905.
566. Biological relation of aquatic plants to the substratum. By Raymond H. Pond. Report for 1903, p. 483-526, 6 text fig. 1905.
567. State ichthyology of Massachusetts. By Theodore Gill. Report for 1904, p. 163-188. 1905.
568. The fish fauna of the Tortugas Archipelago. By David Starr Jordan and Joseph C. Thompson. Bulletin, vol. xxiv, 1904, p. 229-256, 6 text fig. 1905.
569. Distribution of sewage in the waters of Narragansett Bay, with especial reference to the contamination of the oyster beds. By Caleb Allen Fuller. Report for 1904, p. 189-238, 2 text cuts. 1905.
570. Statistics of the fisheries of the South Atlantic States, 1902. Report for 1903, p. 343-410. 1905.
571. Statistics of the fisheries of the Gulf States, 1902. Report for 1903, p. 411-481. 1905.

BUREAU OF FISHERIES—Continued.

Doc. No.

572. New starfishes from deep water off California and Alaska. By Walter K. Fisher. Bulletin, vol. xxiv, 1904, p. 291-320. 1905.
574. Notes on the fishes of the streams flowing into San Francisco Bay, California. Critical notes on *Mylocheilus lateralis* and *Leuciscus caurinus*. By John O. Snyder. Report for 1904, p. 327-342, pl. i. 1905.
576. Note regarding the promotion of fishery trade between the United States and Japan. By Hugh M. Smith. Report for 1904, p. 239-243. 1905.
577. Commercial fisheries of the Hawaiian Islands, 1901. By John N. Cobb. Bulletin, vol. xxiii, 1903, pt. ii, p. 716-765, pl. 102-106. 1905.
578. The gas disease in fishes. By M. C. Marsh and F. P. Gorham. Report for 1904, p. 343-376, pl. i-iii. 1905.
579. A revision of the cave fishes of North America. By Ulysses O. Cox. Report for 1904, p. 377-393, 11 text fig., pl. i-vi. 1905.
582. The deep-sea fishes of the Hawaiian Islands. By Charles Henry Gilbert. Bulletin, vol. xxiii, 1903, pt. ii, p. 575-713, pl. 66-101. 1905.
583. Parasites of fishes of Beaufort, N. C. By Edwin Linton. Bulletin, vol. xxiv, 1904, p. 321-428, pl. i-xxxiv. 1905.
584. Physiological studies of the chinook salmon. By Charles Wilson Greene. Bulletin, vol. xxiv, 1904, p. 429-456, 6 text fig. 1905.
585. The Amphipoda of southern New England. By S. J. Holmes. Bulletin, vol. xxiv, 1904, p. 457-529, 65 text fig., pl. i-xiii. 1905.
586. Hydroids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By C. C. Nutting. Bulletin, vol. xxiii, 1903, pt. iii, p. 931-959, pl. i-xiii. 1905.
587. The Brachyura and Macrura of the Hawaiian Islands. By Mary J. Rathbun. Bulletin, vol. xxiii, 1903, pt. iii, p. 827-930, 79 text fig., pl. i-xxiv. 1905.
588. Schizopods of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. E. Ortmann. Bulletin, vol. xxiii, 1903, pt. iii, p. 961-973. 1905.
589. Nemertean of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By Wesley R. Coe. Bulletin, vol. xxiii, 1903, pt. iii, p. 975-986, 7 text fig., pl. i. 1905.
590. The commercial fisheries of the Hawaiian Islands in 1903. By John N. Cobb. Report for 1904, p. 433-511. 1905.
591. Notes on the food and parasites of some fresh-water fishes from the lakes at Madison, Wis. By W. S. Marshall and N. C. Gilbert. Report for 1904, p. 513-522. 1905.
594. Report of the Commissioner of Fisheries for the year ending June 30, 1905. 46 p. 1905.
596. The physiological effects upon fishes of changes in the density and salinity of water. By F. B. Sumner. Bulletin, vol. xxv, 1905, p. 53-108, 2 text fig. 1906.
597. Opisthobranchiate Mollusca from Monterey Bay, California, and vicinity. By F. M. MacFarland. Bulletin, vol. xxv, 1905, p. 109-151, pl. xviii-xxix. 1906.
598. Hirudinea and Oligochaeta collected in the Great Lakes region. By J. P. Moore. Bulletin, vol. xxv, 1905, p. 153-171, 6 text fig., pl. xxxii. 1906.
599. The starfishes of the Hawaiian Islands. By W. K. Fisher. Bulletin, vol. xxiii, 1903, pt. iii, p. 987-1130, 2 text fig., pl. i-xliv. 1906.
600. Medusae of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. G. Mayer. Bulletin, vol. xxiii, 1903, pt. iii, p. 1131-1143, pl. i-iii. 1906.
601. Polychaetous annelids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. L. Treadwell. Bulletin, vol. xxiii, 1903, pt. iii, p. 1145-1181, 81 text fig. 1906.
605. The fishes of Samoa. Description of the species found in the archipelago, with a provisional list of the fishes of Oceania. Bulletin, vol. xxv, 1905, p. 173-455, 111 text fig., pl. xxxiii-lviii. 1906.
609. Statistics of the fisheries of the Middle Atlantic States for 1904. 122 p. 1907.

BUREAU OF FISHERIES—Continued.

Doc. No.

614. List of publications of Bureau of Fisheries available for distribution, Nov. 7, 1911. 23 p. 1911.
623. Notes on fishes of Hawaii, with descriptions of new species. By David S. Jordan and John O. Snyder. Bulletin, vol. xxvi, 1906, p. 205-218, 4 text fig., pl. xii-xiii. 1907.
624. The fishes of Alaska. By Barton W. Evermann and E. L. Goldsborough. Bulletin, vol. xxvi, 1906, p. 219-360, 144 text fig., pl. xiv-xlii. 1907.
625. The physiology of the digestive tract of elasmobranchs. By M. K. Sullivan. Bulletin, vol. xxvii, 1907, p. 1-27, pl. i. 1907.
633. The fishes of the Connecticut Lakes and neighboring waters, with notes on the plankton environment. By W. C. Kendall and E. L. Goldsborough. 77 p., pl. i-xii, text fig. 1-5, 2 charts. 1908.
634. Devils Lake, North Dakota: A study of physical and biological conditions, with a view to the acclimatization of fish. By Thomas E. B. Pope. 22 p. pl. i-iii, 1 map. 1908.
636. Relationships of the fish fauna of the lakes of southeastern Oregon. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 69-102, 4 text fig., 1 map. 1908.
637. The fishes of the Sacramento-San Joaquin basin, with a study of their distribution and variation. By Cloudsley Rutter. Bulletin, vol. xxvii, 1907, p. 103-152, 4 text fig., pl. vi. 1908.
638. The fishes of the coastal streams of Oregon and northern California. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 153-189, text fig. 1-5, 1 map. 1908.
640. Fishes from islands of the Philippine Archipelago. By David Starr Jordan and Robert E. Richardson. Bulletin, vol. xxvii, 1907, p. 233-287, text fig. 1-12. 1908.
642. Report of the Commissioner of Fisheries for the year ended June 30, 1908. 23 p. 1908.
645. The fisheries of Alaska in 1908. By M. C. Marsh and J. N. Cobb. 78 p. 1909.
646. International regulations of the fisheries on the high seas. By O. T. Olsen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 77-90. 1910.
647. International regulations of the fisheries on the high seas. By Charles E. Fryer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 91-102. 1910.
648. International regulations of the fisheries on the high seas. By Charles Hugh Stevenson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 103-180, 3 text fig. 1910.
649. Work of the International Fisheries Commission. By David Starr Jordan. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 181-186. 1910.
650. Some reasons for failure of fish-protective legislation, and some suggested remedies. By Oregon Milton Dennis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 187-192. 1910.
651. National aspects of angling and the protection of game fishes. By H. Wheeler Perce. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 193-198. 1910.
652. Sport fishing in California and Florida. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 199-207, pl. i-vi. 1910.
653. Lobsters and the lobster problem in Massachusetts. By George W. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 209-217. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

654. A method of lobster culture. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 219-240, 7 text fig., pl. vii-xi. 1910.
655. Sea mussels and dogfish as food. By Irving A. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 241-257. 1910.
656. On the wholesomeness of oysters as food. By Henry C. Rowe. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 259-267. 1910.
657. Effects of menhaden fishing upon the supply of menhaden and of the fishes that prey upon them. By Walter E. Hathaway. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 269-278. 1910.
658. Effects of the menhaden and mackerel fisheries upon the fish supply. By W. C. Kendall. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 279-293. 1910.
659. An improved and practical method of packing fish for transportation. By A. Sjöling. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 295-301. 1910.
660. A process for preserving the pearl-oyster fisheries and for increasing the value of the yield of pearls. By John I. Solomon. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 303-313, 3 text fig. 1910.
661. Fur seals and the seal fisheries. By Charles H. Townsend. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 315-322. 1910.
662. Economic conditions of the fisheries in Italy. By Guido Rossati. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 323-332. 1910.
663. The fisheries and the guano industry of Peru. By Robert E. Coker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 333-365, pl. xii-xvii. 1910.
664. The fisheries of China. By W. W. Yen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 367-373. 1910.
665. The fisheries of Japan considered from a geographical standpoint. By T. Kitahara. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 375-379. 1910.
667. Commercial sponges and the sponge fisheries. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 399-511, 4 text fig., pl. xxviii-lxxvi. 1910.
668. The abuse of the scaphander in the sponge fisheries. By Ch. Flegel. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 513-548. 1910.
669. A practical method of sponge culture. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 545-585, 7 text fig., pl. lxxvii-lxxvi. 1910.
670. Sponge culture. By Jules Cotte. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 587-614. 1910.
671. Experiments in the artificial propagation of fresh-water mussels. By George Lefevre and W. C. Curtis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 615-626. 1910.
672. A plan for promoting the whitefish production of the Great Lakes.^a By S. W. Downing. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 627-633. 1910.

^a Documents 672, 673, and 674, with discussion occupying p. 685-695, are issued under one cover.

BUREAU OF FISHERIES—Continued.

Doc. No.

673. A plan for promoting the whitefish production of the Great Lakes.^a By Frank N. Clark. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 635-642. 1910.
674. A plan for promoting the whitefish production of the Great Lakes.^a By Paul Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 643-684, 5 text fig. 1910.
675. Fish-cultural practices in the Bureau of Fisheries. By John W. Titcomb. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 697-757, 13 text fig., pl. LXXVII-LXXXIX. 1910.
676. A new principle of aquiculture and transportation of live fishes. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 759-780, 1 text fig., pl. xc-c. 1910.
677. A method of cultivating rainbow trout and other Salmonidæ. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 781-787, 3 text fig. 1910.
678. Possible expansion of shad-hatchery work. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 789-793. 1910.
679. The comparative value of foods for rainbow trout and other salmonoids. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 795-798. 1910.
680. Apparatus and methods used at the marine fish hatchery at Flödevig, Norway. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 799-809, 8 text fig., pl. ci. 1910.
681. The utility of sea-fish hatching. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 811-816. 1910.
682. Propagation and protection of the Rhine salmon. By P. P. C. Hoek. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 817-829, 2 text fig. 1910.
683. Fishes in their relation to the mosquito problem. By William P. Seal. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 831-838. 1910.
684. Foods for young salmonoid fishes. By Charles G. Atkins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 839-851. 1910.
685. Fresh-water shrimp, a natural fish food. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 853-858. 1910.
686. The cultivation of the turbot. By R. Anthony. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 859-870, 2 text fig., pl. cii-ciii. 1910.
687. The treatment of fish-cultural waters for the removal of algæ. By M. C. Marsh and R. K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 871-890, 2 text fig. 1910.
688. Notes on the dissolved content of water in its effect upon fishes. By M. C. Marsh. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 891-906. 1910.

^a Documents 672, 673, and 674, with discussion occupying p. 685-695, are issued under one cover.

BUREAU OF FISHERIES—Continued.

Doc. No.

689. Causes of diseases in young salmonoids. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 907-916. 1910.
690. Radical prevention of *Costia necatrix* in salmonoid fry. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 917-923. 1910.
691. Treatment of fungus on fishes in captivity. By L. B. Spencer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 929-932. 1910.
692. Methods of combating fungus diseases on fishes in captivity. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 933-936. 1910.
693. A new method of combating fungus on fishes in captivity. By Paul Zirzow. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 937-940. 1910.
694. Experience in abating disease among brook trout. By Albert Rosenberg. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 941-945. 1910.
695. American fishes in Italy. By G. Besana. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 947-954. 1910.
696. Acclimatization of American fishes in Argentina. By E. A. Tullian. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 955-965. 1910.
697. Introduction of American fishes into New Zealand. By L. F. Ayson. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 967-975. 1910.
698. Naturalization of American fishes in Austrian waters. By Franz von Pirko. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 977-982. 1910.
699. Causes of degeneration of American trouts in Austria. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 983-989. 1910.
700. New and improved devices for fish culturists. By Alfred E. Fuller. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 991-1000, pl. civ-cvi. 1910.
701. A device for counting young fish. By Robert K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1001-1004, 1 text fig. 1910.
702. A method of transporting live fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1005-1007. 1910.
703. A method of measuring fish eggs. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1009-1014, 2 text fig. 1910.
704. An improvement in hatching and rearing boxes; with notes on continuous feeding of the fry of Salmonidae. By G. E. Simms. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1015-1023, 3 text fig. 1910.
705. Devices for the use of fish hatcheries and aquaria. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1025-1035, 6 text fig. 1910.
706. New methods of transporting eggs and fish. By W. S. Kincaid. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1037-1039. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

707. Fishways. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1041-1067, 21 text fig. 1910.
708. A plea for observation of habits of fishes and against undue generalization. By Theodore Gill. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1059-1069. 1910.
709. The habits and life history of the toadfish (*Opsanus tau*). By E. W. Gudger. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1071-1110, 1 text fig., pl. ovii-oxiii. 1910.
710. Methods of studying the habits of fishes and recording their life histories; with an account of the breeding habits of the horned dace. By Jacob Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1111-1136, 5 text fig., pl. cxiv-cxx. 1910.
711. A method of studying the life history of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1137-1141. 1910.
712. Effects of changes in the density of water upon the blood of fishes. By G. G. Scott. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1143-1150. 1910.
713. Internal parasites of the Sebago salmon. By Henry B. Ward. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1151-1194, pl. cxxi. 1910.
714. Notes on the flesh parasites of marine food fishes. By Edwin Linton. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1195-1209. 1910.
715. Structure and functions of the ear of the squeteague. By G. H. Parker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1211-1224, pl. cxxii. 1910.
716. An intensive study of the fauna and flora of a restricted area of sea bottom. By Francis B. Sumner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1225-1263, 27 text fig., 2 charts. 1910.
717. Development of sponges from tissue cells outside of the body of the parent. By H. V. Wilson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1265-1271. 1910.
718. Gases dissolved in the waters of Wisconsin lakes. By E. A. Birge. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1273-1294, 20 text fig. 1910.
719. Volumetric studies of the food and feeding of oysters. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1295-1308, 6 text fig., pl. cxxv. 1910.
720. A plan for an educational exhibit of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1309-1314. 1910.
721. A plan for an educational exhibit of fishes. By Roy W. Miner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1315-1346, 9 text fig., pl. cxxvi-cxli. 1910.
722. Outline for an educational exhibit of fishes. By Frederic A. Lucas. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1341-1351. 1910.
723. A method of preparing fish for museum and exhibition purposes. By Dwight Franklin. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1353-1355, pl. cxlii. 1910.

BUREAU OF FISHERIES—Continued.

Doc. No.

724. New methods of preparing fishes for museum exhibit. By J. D. Figgins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1357-1363. 1910.
725. The U. S. Bureau of Fisheries: Its establishment, functions, organization, resources, operations, and achievements. By Hugh M. Smith. Second edition. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, 1908, p. 1365-1411, pl. cxxiii-clvi. 1910.
726. Organization and sessional business of the Fourth International Fishery Congress, Washington, U. S. A., 1908. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, p. 1-76. 1910.
728. Distribution of fish and fish eggs during the fiscal year 1909. 103 p. 1910.
730. The fisheries of Alaska in 1909. By M. C. Marsh and John N. Cobb. 58 p. 1910.
731. Oyster-culture experiments and investigations in Louisiana. By H. F. Moore. 54 p., 8 pl. 1910.
732. Laws and regulations relative to fur-seal fishing. 7 p. 1910.
733. American catfishes: Habits, culture, and commercial importance. By W. C. Kendall. 39 p., 10 pl. 1910.
734. Report of the Commissioner of Fisheries, 1910. 40 p. 1910.
735. The fur-seal fisheries of Alaska in 1909. By Walter I. Lembkey. 53 p. 1910.
736. Marine isopods collected in the Philippines by the U. S. fisheries steamer *Albatross* in 1907-8. By Harriet Richardson. 44 p., 39 text fig. 1910.
737. A review of the salmonoid fishes of the Great Lakes, with notes on the whitefishes of other regions. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. xxix, 1909, p. 1-41, pl. i-vii, 23 text fig. 1911.
738. Influence of the eyes, ears, and other allied sense organs on the movements of the dogfish, *Mustelus canis* (Mitchill). By George H. Parker. Bulletin, vol. xxix, 1909, p. 43-57. 1910.
739. Barnacles of Japan and Bering Sea. By Henry A. Pilsbry. Bulletin, vol. xxix, 1909, p. 59-84, 11 text fig., pl. viii-xvii. 1911.
740. Distribution of fish and fish eggs during the fiscal year 1910. 112 p. 1911.
741. Dredging and hydrographic records of the U. S. fisheries steamer *Albatross* during the Philippine expedition, 1907-1910. 97 p. 1910.
742. The food value of sea mussels. By Irving A. Field. Bulletin, vol. xxix, 1909, p. 85-128, 2 text fig., pl. xviii-xxv. 1911.
743. The migration of salmon in the Columbia River. By Charles W. Greene. Bulletin, vol. xxix, 1909, p. 129-148, pl. xxvi-xxvii. 1911.
744. Anatomy and physiology of the wing-shell *Atrina rigida*. By Benjamin H. Grave. Bulletin, vol. xxix, 1909, p. 409-438, 15 text fig., pl. xlviii-l. 1911.
745. Condition and extent of the natural oyster beds of Delaware. By H. F. Moore. 29 p., 1 chart. 1911.
746. The fisheries of Alaska in 1910. 72 p. 1911.
747. Natural history of the American lobster. By Francis H. Herrick. Bulletin, vol. xxix, 1909, p. 149-408, pl. xxviii-xxlvii, 42 text fig. 1911.
748. Special investigation of the Alaska fur-seal rookeries, 1910. By Harold Heath. 22 p. 1911.
749. The fur-seal fisheries of Alaska in 1910. By Walter I. Lembkey. 40 p. 1911.
750. Development of sponges from dissociated tissue cells. By H. V. Willson. Bulletin, vol. xxx, 1910, p. 1-30, pl. i-v. 1911.
751. The salmon fisheries of the Pacific coast. By John N. Cobb. 179 p. 1911.
752. Effects of explosive sounds, such as those produced by motor boats and guns, upon fishes. By G. H. Parker. 9 p. 1911.
753. Report of the Commissioner of Fisheries. 1911. 69 p. 1912.

BUREAU OF FISHERIES—Continued.

Doc. No.

754. Fishes from Bering Sea and Kamchatka. By Charles Henry Gilbert and Charles Victor Burke. Bulletin, vol. xxx, 1910, p. 31-96, 41 text fig. 1912.
755. Sound as a directing influence in the movements of fishes. By G. H. Parker. Bulletin, vol. xxx, 1910, p. 97-104. 1912.
756. Studies on the reproduction and artificial propagation of fresh-water mussels. By George Lefevre and Winterton C. Curtis. Bulletin, vol. xxx, 1910, p. 105-201, pl. vi-xvii, 4 text fig. - 1912.
757. The mussel fauna of the Maumee River. By H. Walton Clark and Charles B. Wilson. 72 p., 2 pl. 1912.
758. The mussel fauna of the Kankakee Basin. By Charles B. Wilson and H. Walton Clark. 52 p., 1 pl., 1 map. 1912.
759. The mussels of the Big Buffalo Fork of White River, Ark. By S. E. Meek and H. Walton Clark. 20 p. 1912.
760. The bryozoa of the Woods Hole region. By Raymond C. Osburn. Bulletin, vol. xxx, 1910, p. 203-266, pl. xviii-xxxi. 1912.
761. A review of the cephalopods of Western North America. By S. Stillman Berry. (In press.)
762. Some hydroids of Beaufort, N. C. By C. McLean Fraser. (In press.)
763. Preliminary examination of the halibut fishing grounds of the Pacific coast. (In press.)
- A biological survey of the waters of Woods Hole and vicinity [to be printed as Bulletin, vol. xxxi, 1911]. (In press.)

BUREAU OF IMMIGRATION AND NATURALIZATION.

- Annual report of the Commissioner General of Immigration, 1912. 263 pp. 1912. [There are also available limited supplies of the annual reports of the Commissioner General for each of the years 1892, 1897, 1899, 1900, 1901, 1902, and 1903.]
- Immigration laws; [and] rules of Nov. 15, 1911. 2d ed. 67 pp. 1912.
- Treaty, laws, and regulations governing the admission of Chinese. Edition Apr. 15, 1912. 63 pp. 1912.

The Bureau also issues monthly, for the use of the press and individuals directly concerned, a statement giving comparative statistics of immigration and the inward and outward passenger movements.

DIVISION OF NATURALIZATION.

- Annual report of the Chief of the Division of Naturalization to the Commissioner General of Immigration, 1911. 29 pp. 1911. [Printed also in report of the Commissioner General.]
- Naturalization laws and regulations, Nov. 11, 1911. 29 pp. 1911.

DIVISION OF INFORMATION.

- Annual report of the Chief of the Division of Information to the Commissioner General of Immigration, 1911. 14 pp. 1911. [Printed also in report of the Commissioner General.]
- Agricultural opportunities. Information concerning resources, products, and physical characteristics of the North Atlantic States, comprising Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. 32 pp. 1912.
- Same, South Atlantic States, comprising Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida. 36 pp. 1912.
- Same, North Central States (eastern group), comprising Ohio, Indiana, Illinois, Michigan, and Wisconsin. 23 pp. 1912.
- Same, North Central States (western group), comprising Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. 32 pp. 1912.

BUREAU OF IMMIGRATION AND NATURALIZATION—Continued.**DIVISION OF INFORMATION—continued.**

Agricultural opportunities. Information concerning resources, products, and physical characteristics of the South Central States, comprising Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas. 36 pp. 1912.

Same, Western States (northern group), comprising Montana, Wyoming, Idaho, Washington, and Oregon, and the Territory of Alaska. 32 pp. 1912.

Same, Western States (southern group), comprising Colorado, New Mexico, Arizona, Utah, Nevada, and California, and the Territory of Hawaii. 32 pp. 1912.

Distribution of admitted aliens and other residents. Proceedings of the conference of State immigration, land, and labor officials with representatives of the Division of Information, Bureau of Immigration and Naturalization, Department of Commerce and Labor, held in Washington, D. C., Nov. 16 and 17, 1911. 115 pp. 1912.

BUREAU OF LABOR.**ANNUAL REPORTS.**

First annual report of the Commissioner of Labor, 1886: Industrial depressions. 496 pp. 1886.

Third annual report of the Commissioner of Labor, 1887: Strikes and lockouts, Jan. 1, 1881, to Dec. 31, 1886. 1172 pp. 1888.

Fourth annual report of the Commissioner of Labor, 1888: Working women in large cities. 631 pp. 1889.

Fifth annual report of the Commissioner of Labor, 1889: Railroad labor. 888 pp. 1890.

Seventh annual report of the Commissioner of Labor, 1891: Cost of production: The textiles and glass (2 vols.). 2048 pp. 1892.

Eighth annual report of the Commissioner of Labor, 1892: Industrial education. 707 pp. 1893.

Fifteenth annual report of the Commissioner of Labor, 1900: A compilation of wages in commercial countries from official sources (2 vols.). 1642 pp. 1900.

Nineteenth annual report of the Commissioner of Labor, 1904: Wages and hours of labor. 976 pp. 1905.

Twentieth annual report of the Commissioner of Labor, 1905: Convict labor. 794 pp. 1906.

Twenty-first annual report of the Commissioner of Labor, 1906: Strikes and lockouts, Jan. 1, 1881, to Dec. 31, 1905. 979 pp. 1907.

Twenty-third annual report of the Commissioner of Labor, 1908: Workmen's insurance and benefit funds in the United States. 810 pp. 1909.

Twenty-fourth annual report of the Commissioner of Labor, 1909: Workmen's insurance and compensation systems in Europe (2 vols.). 2749 pp. 1911.

Twenty-fifth annual report of the Commissioner of Labor, 1910: Industrial education. 822 pp. 1911.

SPECIAL REPORTS.

Index of all reports issued by bureaus of labor statistics in the United States prior to Mar. 1, 1902. 287 pp. 1902.

Third report of the Commissioner of Labor on Hawaii, 1905. 333 pp. 1906.

Fourth report of the Commissioner of Labor on Hawaii, 1910. 465 pp. 1911. [Printed also as Bulletin 94.]

Investigation of Western Union and Postal Telegraph-Cable companies. 554 pp. 1906.

Report on strike at Bethlehem Steel Works, South Bethlehem, Pa. 136 pp. 1910.

Laws relating to compensation for industrial accidents in foreign countries. [Part of 24th annual report.] 277 pp. 1909.

Vocational guidance. (Part of 25th annual report.) pp. 411-497. 1911.

Summary of the wages and hours of labor. (From the report on conditions of employment in the iron and steel industry.) 57 pp. 1912.

BUREAU OF LABOR—Continued.

BULLETINS.

- No. 11. Workers at gainful occupations at censuses of 1870, 1880, and 1890; Public baths in Europe. 156 pp., 8 pls. July, 1897.
- No. 29. Trusts and industrial combinations; The Yukon and Nome gold regions; Labor day. 252 pp. July, 1900.
- No. 30. Trend of wages from 1891 to 1900; Statistics of cities; Foreign labor laws: Various European countries. 204 pp. September, 1900.
- No. 33. Foreign labor laws: Australasia and Canada; The British conspiracy and protection of property act and its operation. 204 pp. March, 1901.
- No. 34. Labor conditions in Porto Rico; Social economics at the Paris Exposition; The workmen's compensation act of Holland. 186 pp. May, 1901.
- No. 35. Cooperative communities in the United States; The Negro landholder of Georgia. 250 pp., 15 text figs. July, 1901.
- No. 36. Statistics of cities; Statistics of Honolulu, Hawaii. 210 pp. September, 1901.
- No. 38. Labor conditions in Mexico; The Negroes of Cinclare Central Factory and Calumet Plantation, La. 104 pp., 4 pls. January, 1902.
- No. 39. Course of wholesale prices, 1890 to 1901. 314 pp. March, 1902.
- No. 40. Present condition of the hand-working and domestic industries of Germany; Workmen's compensation acts of foreign countries. 154 pp. 1 tab. inset. May, 1902.
- No. 41. Labor conditions in Cuba; Beef prices. 218 pp. July, 1902.
- No. 44. Factory sanitation and labor protection. 202 pp. January, 1903.
- No. 45. Course of wholesale prices, 1890 to 1902. 234 pp., 4 text figs. March, 1903.
- No. 47. Report of the Commissioner of Labor on Hawaii. 298 pp. July, 1903.
- No. 48. Farm colonies of the Salvation Army; The Negroes of Xenia, Ohio: A social study. 154 pp. September, 1903.
- No. 51. Course of wholesale prices from 1890-1903; Union movement among coal-mine workers; Agreements between employers and employees. 266 pp., 4 text figs. March, 1904.
- No. 53. Wages and cost of living. 266 pp. July, 1904.
- No. 54. The working of the United States Bureau of Labor; Bureaus of statistics of labor in the United States; Bureaus of statistics of labor in foreign countries; The value and influence of labor statistics; Strikes and lockouts in the United States, 1881 to 1900; Wages in the United States and Europe, 1890 to 1903; Cost of living and retail prices in the United States, 1890 to 1903; Wholesale prices in the United States, 1890 to 1903; Housing of the working people in the United States by employers; Public baths in the United States; Trade and technical education in the United States; Hand and machine labor in the United States; Labor legislation in the United States; Labor conditions in Hawaii. 522 pp., 194 pls., 21 text figs. September, 1904.
- No. 57. Course of wholesale prices, 1890 to 1904; Street railway employment in the United States; State cooperative accident insurance fund of Maryland. 332 pp., 4 text figs. March, 1905.
- No. 58. Labor conditions in the Philippines; Labor conditions in Java; The new Russian workmen's compensation act. 299 pp. May, 1905.
- No. 59. Wages and hours of labor in manufacturing industries, 1890 to 1904; Retail prices of food, 1890 to 1904; Laws relating to child labor in European countries. 385 pp., 2 pl. July, 1905.
- No. 63. Course of wholesale prices, 1890 to 1905. 255 pp., 4 text figs. March, 1906.
- No. 64. Conditions of living among the poor; Benefit features of British trade unions. 317 pp. May, 1906.
- No. 69. Wholesale prices, 1890 to 1906. 233 pp., 4 text figs. March, 1907.
- No. 75. Wholesale prices, 1890 to 1907; Industrial hygiene. 374 pp., 4 text figs. March, 1908.

BUREAU OF LABOR—BULLETINS—Continued.

- No. 76. Canadian Industrial Disputes Investigation Act of 1907; What is done for the unemployed in European countries. 380 pp. May, 1908.
- No. 80. Woman and child wage-earners in Great Britain. 194 pp. January, 1909.
- No. 81. Wholesale prices, 1890 to 1908. 275 pp., 4 text figs. March, 1909.
- No. 82. Mortality from consumption in occupations exposing to municipal and general organic dust. 215 pp. May, 1909.
- No. 83. Women's trade-union movement in Great Britain; Cost of living of the working classes in the principal industrial towns of France. 181 pp. July, 1909.
- No. 84. Accidents to railroad employees in New Jersey, 1888 to 1907; The Minnesota iron ranges. 272 pp. September, 1909.
- No. 85. Review of labor legislation of 1908 and 1909; Laws of various States relating to labor, enacted since Jan. 1, 1908. 410 pp. November, 1909.
- No. 86. Canadian Industrial Disputes Investigation Act of 1907; Phosphorus poisoning in the match industry in the United States; List of industrial poisons. 375 pp. January, 1910.
- No. 87. Wholesale prices, 1890 to March, 1910; Wages and hours of labor of union carpenters in the United States and in English-speaking foreign countries. 319 pp., 5 text figs. March, 1910.
- No. 88. Cost of living of families of moderate income in Germany in 1907-8; Trend of wages in Germany, 1898 to 1907; Wages and hours of labor in German woodworking industries in 1906; Wages and hours of labor in Austria, 1906 and 1907. 230 pp. May, 1910.
- No. 89. Child-labor legislation in Europe. 436 pp. July, 1910.
- No. 90. Fatal accidents in coal mining; Recent action relating to employers' liability and workmen's compensation; Essential features of a compensation law—Chicago conference of November, 1910; Summary of foreign workmen's compensation acts; Cost of employers' liability and workmen's compensation insurance. 430 pp. September, 1910.
- No. 91. Working hours of wage-earning women in selected industries in Chicago; Labor laws declared unconstitutional; Old-age and invalidity pension laws of Germany, France, and Australia; Review of labor legislation of 1910; Laws of various States relating to labor enacted since January 1, 1910. 293 pp. November, 1910.
- No. 92. Industrial accidents and loss of earning power—German experience in 1897 and 1907; Workmen's compensation insurance; Laws and bills, 1911; International Association for Labor Legislation; Report of Illinois commission on occupational diseases. 321 pp. January, 1911.
- No. 94. Fourth report of the Commissioner of Labor on Hawaii, 1910. 476 pp. May, 1911.
- No. 95. Industrial lead poisoning in Europe; White-lead industry in the United States; Deaths from industrial lead poisoning in New York. 368 pp., 1 chart, 6 pls., 2 text figs. July, 1911.
- No. 96. Hours and earnings of women workers in Maryland and California; Employment of children in Maryland industries; Massachusetts manufacturers and employees' health; German workmen's insurance code. July 19, 1911. 540 pp. September, 1911.
- No. 97. Review of labor legislation of 1911; State labor laws enacted since Jan. 1, 1911. 641 pp., 1 chart. November, 1911.
- No. 98. Mediation and arbitration of railway disputes in United States; Canadian industrial disputes act of 1907; Conciliation and arbitration in Great Britain; Conciliation, etc., in cloak industry in New York City; Industrial courts in France, Germany, and Switzerland. 520 pp. January, 1912.
- No. 99. Wholesale prices, 1890 to 1911. 245 pp. 4 text figs. March, 1912.
- No. 100. List of industrial poisons. 60 pp. May, 1912.
- No. 101. Care of tuberculosis wage-earners in Germany. (In press.)
- No. 102. British national insurance act of 1911. (In press.)

BUREAU OF LIGHTHOUSES.

- Light list, Atlantic and Gulf coasts of the United States. Corrected to July 1, 1912. (In press.)
- Same, Pacific coast—United States, Canada, and Hawaiian and Samoan Islands. Corrected to Mar. 15, 1912. 100 pp. 1912.
- List of lights and fog signals of the United States and the Dominion of Canada on the northern lakes and rivers, and of the unlighted aids to navigation of the United States on those waters. Corrected to July 15, 1910. 180 pp., 1 map. 1910.
- Atlantic coast of the United States. List of buoys and other aids to navigation, Maine and New Hampshire. First lighthouse district. Corrected to July 15, 1911. 88 pp. 1911.
- Same, coast of Massachusetts. Second lighthouse district. Corrected to Aug. 31, 1911. 70 pp. 1911.
- Same, Narragansett Bay to Cape May, including New York Harbor. Third lighthouse district. Corrected to Mar. 31, 1911. 110 pp. 1911.
- Same, Delaware Bay and River, including Philadelphia Harbor. Fourth lighthouse district. Corrected to Mar. 15, 1911. 30 pp. 1911.
- Same, Cape Henlopen to Cape Lookout, including Chesapeake Bay and North Carolina sounds. Fifth lighthouse district. Corrected to Apr. 1, 1911. 115 pp. 1911.
- Same, Cape Lookout to Hillsboro Inlet. Sixth lighthouse district. Corrected to Oct. 1, 1911. 60 pp. 1911.
- Same, Florida Reefs, and Gulf coast to Cedar Keys. Seventh lighthouse district. Corrected to May 15, 1911. 37 pp. 1911.
- Gulf coast of the United States. List of buoys and other aids to navigation, Cedar Keys to the Rio Grande. Eighth lighthouse district. Corrected to Aug. 1, 1911. 51 pp. 1911.
- West Indies. List of buoys and other aids to navigation, Porto Rico and adjacent islands. Ninth lighthouse district. Corrected to May 15, 1911. 21 pp. 1911.
- Great Lakes. List of buoys and other aids to navigation, Lake Erie and Lake Ontario, St. Lawrence River. Tenth lighthouse district. Corrected to July 1, 1912. (In press.)
- Same, Lake Michigan and Green Bay. Twelfth lighthouse district. Corrected to July 1, 1912. (In press.)
- List of lights, buoys, and daymarks on the Ohio, Tennessee, Kanawha, and Monongahela Rivers. Fourteenth lighthouse district. Corrected to June 1, 1912. (In press.)
- List of aids to navigation on the Mississippi River (New Orleans to Cairo). Fifteenth lighthouse district. Corrected to Aug. 15, 1910. 65 pp. 1911.
- Pacific coast of the United States. List of buoys and other aids to navigation, California, Oregon, Washington, Alaska. Sixteenth, Seventeenth, and Eighteenth lighthouse districts. Corrected to July 1, 1911. 84 pp. 1911.
- Pacific islands of the United States. List of buoys and other aids to navigation, Hawaiian and Samoan Islands. Nineteenth lighthouse district. Corrected to July 31, 1911. 21 pp. 1911.
- Annual report of the Commissioner of Lighthouses, 1911. 81 pp. 1911. [There are also on hand a limited supply of each of the annual reports since 1895, except those for 1904 and 1905.]
- Report on use of acetylene gas by the Canadian government as an illuminant for aids to navigation. By Capt. Albert Ross, U. S. N., member of the Lighthouse Board. 28 pp. 1907.
- Report upon fog-signal experiments. By Maj. William R. Livermore, Corps of Engineers, U. S. A. 376 pp., 64 pls. 1894.
- Aberrations of audibility of fog-signals. By Arnold B. Johnson, chief clerk of the Lighthouse Board. 16 pp., 1 pl. 1885.
- History of the application of electric light to lighting the coasts of France. By Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 pp., 25 pls. 1883.

BUREAU OF LIGHTHOUSES—Continued.

Report upon the exhibit of the Lighthouse Board at the World's Columbian Exposition held at Chicago, 1893. By A. B. Johnson, chief clerk, Lighthouse Board. 42 pp., illus. 1894.

Regulations for lighting bridges, 1912. 14 pp., 5 pls. 1912.

Whitewash and cement-wash formulas. 1 p. 1906.

The Bureau also, in collaboration with the Coast and Geodetic Survey, publishes weekly, for the benefit of mariners and others interested in navigation, a Notice to Mariners. Requests to be placed on the mailing list to receive the publication regularly should be addressed to the Division of Publications.

BUREAU OF MANUFACTURES.

The publications of the Bureau of Manufactures are made up chiefly of reports from United States consular officers and commercial agents in foreign countries, and in addition to those listed below the Bureau publishes the Daily Consular and Trade Reports, which is designed to benefit manufacturers, exporters, etc., in promoting trade. The number of copies that may be distributed is limited by law; therefore preference is given to applications received from those for whose special benefit it is issued. Applications should be addressed to the Bureau.

SPECIAL AGENTS SERIES.

6. Report on trade conditions in Japan and Korea. 48 pp. 1906.
7. Report on trade conditions in China. 125 pp., 17 text figs. 1906.
12. Report on trade conditions in Asiatic Turkey. 45 pp. 1907.
18. Cotton textile trade in Turkish Empire, Greece, and Italy. 125 pp. 1908.
20. Swiss embroidery and lace industry. 43 pp. 1908.
26. Machine-tool trade in Germany, France, Switzerland, Italy, and the United Kingdom. 246 pp. 1909.
27. German iron and steel industry. 73 pp. 1909.
28. American agricultural implements in Europe, Asia, and Africa. 88 pp. 1909.
30. Flour and wheat trade in European countries and the Levant. 168 pp. 1909.
32. Machine-tool trade in Belgium. 93 pp. 1909.
35. Flour trade in Latin America—Part 1. Porto Rico. 30 pp. 1910.
37. Shoe and leather trade in Argentina, Chile, Peru, and Uruguay. 72 pp. 1910.
38. Industrial conditions in Europe—Part 1. England and France. 56 pp. 1910.
42. Industrial conditions in Europe—Part 2. Austria-Hungary. 48 pp. 1910.
44. Cotton goods in Latin America—Part 4. Chile, Bolivia, Peru, Ecuador, Jamaica, and Porto Rico. 118 pp., 8 text figs. 1911.
46. Cotton goods in Spain and Portugal. 60 pp., 1 text fig. 1911.
47. English cotton-goods trade. 11 pp. 1911.
48. Cotton goods in Italy. 55 pp. 1912.
49. Shoe and leather trade in the United Kingdom. 80 pp. 1912.
50. Shoe and leather trade in Germany. 48 pp. 1912.
51. Cotton goods in Russia. 48 pp. 1912.
52. Utilization of atmospheric nitrogen. 178 pp., 5 text figs. 1912.
53. Cotton goods in the Balkan States. 47 pp. 1912.
54. Cotton goods in Turkey—Part 1. 27 pp. 1912.
55. Electrical instruments in England. 38 pp. 1912.
56. English methods of dyeing, finishing, and marketing cotton goods. (In press.)
57. Shoe and leather trade in France and Switzerland. (In press.)

BUREAU OF MANUFACTURES—Continued.

SPECIAL CONSULAR REPORTS.

35. Warehouses in foreign countries for storage of merchandise in transit or in bond. 206 pp. 1905.
37. Machine-made lace industry in Europe. 39 pp., 22 pls., 4 text figs. 1905.
40. Motor machines—Part 2. 144 pp. 1908.
41. Part 3—Commercial courts in Europe. 29 pp. 1909.
Part 4—Police and work dogs in Europe. 16 pp., 7 text figs. 1909.
Part 6—Manufacture of air-nitrate fertilizers. 16 pp., 2 text figs. 1909.
42. Part 1—Municipal art commissions and street lighting in European cities. 30 pp. 1910.
Part 2—Municipal taxation in European countries. 88 pp. 1910.
Part 3—Municipal markets and slaughterhouses in Europe. 117 pp., 9 text figs. 1910.
43. Part 2—Agricultural machinery in foreign countries. 38 pp., 3 text figs. 1910.
Part 3—Camphor industry in foreign countries. 15 pp., 2 text figs. 1910.
45. Cordage and twine trade in foreign countries. 47 pp. 1911.
46. Optical-goods trade in foreign countries. 94 pp. 1911.
47. Australia, its resources, industries, and trade, with suggestions as to its development as a market for American merchandise. 126 pp. 1911.
48. Railway situation in China. 82 pp. 1911.
49. The Gothenburg system. Law and regulations governing the manufacture and sale of alcoholic beverages in Gothenburg, Sweden. 48 pp. 1911.
50. Cocoa production and trade. 51 pp. 1912.
51. Foreign trade in denatured alcohol. 36 pp. 1912.
52. Foreign salt market and industry. 82 pp. 1912.
53. Foreign markets for motor vehicles. (In press.)

ANNUAL SERIES OF CONSULAR REPORTS, 1907.

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| 3. Panama. 15 pp. | 32. Peru, Ecuador, and Paraguay. 81 pp. |
| 4. Canada. 94 pp. | 33. Japan and Korea. 91 pp. |
| 6. Italy. 53 pp. | 34. Siam and Dutch East Indies. 26 pp. |
| 8. Germany. 108 pp. | 35. Central America. 47 pp. |
| 16. United Kingdom. 112 pp. | 36. West Indies. 42 pp. |
| 21. Brazil. 27 pp. | 37. Malta and Gibraltar. 15 pp. |
| 22. Colombia, Venezuela, and British and Dutch Guiana. 39 pp. | 38. Australasia. 38 pp. |
| 25. Belgium. 43 pp. | 39. Northern and Central Africa. 55 pp. |
| 28. British East Indies. 57 pp. | 40. South and East Africa. 74 pp. |
| 29. China. 92 pp. | |
| 30. Turkey in Asia. 52 pp. | |
| 31. Servia and Roumania. 30 pp. | |

MISCELLANEOUS PUBLICATIONS.

- Annual report of the Chief of the Bureau of Manufactures, 1911. 16 pp. 1911.
[There are also available a limited number of the annual reports for each year since 1906, with the exception of 1909.]
- Commercial relations of the United States with foreign countries, calendar year 1909. 1060 pp. 1911. [Annual reports of consuls on commerce and industries of the various countries of the world. There are also available a few copies of the reports for several prior years.]
- Export trade exploitation. [Misc. series No. 2a.] 2d ed., with additions. Mar. 10, 1911. 30 pp. 1911.

BUREAU OF MANUFACTURES—MISCELLANEOUS PUBLICATIONS—Con.

Packing for export. Suggestions for preparation of American merchandise for shipment to foreign countries. [Misc. series No. 5.] 170 pp., 28 text figs. 1911.

Promotion of commerce. Outline of the service maintained by the Bureau of Manufactures and other bureaus and offices of the Government of the United States. [Misc. series No. 6A.] 22 pp. 1912.

Factors in foreign trade. Language, currency, weights and measures, postal rates, and parcel-post facilities. [Misc. series No. 7.] 56 pp. 1912.

TARIFF SERIES.

No. 2. Tariffs on agricultural and animal products. 120 pp. 1907.

No. 3A. Supplement to Tariff Series, No. 3. 34 pp. 1910.

No. 6A. Commercial agreement between the United States and France. 4 pp. 1908.

No. 6a. Proposed new customs tariff of France (2d rev. ed.). 50 pp. 1909.

No. 6c. Commercial convention between France and Canada. 35 pp. 1909.

No. 6a. Abrogation of commercial agreement between the United States and France. 4 pp. 1909.

No. 6a. Proposed new customs tariff of France [supplement to Tariff Series No. 6a]. 19 pp. 1910.

No. 7. Customs tariff of the German Customs Union. Law of Dec. 25, 1902, revised to June, 1911. 127 pp. 1911.

No. 7A. Supplement to German customs tariff. 10 pp. 1912.

No. 8. Customs tariff of New Zealand. 33 pp. 1908.

No. 12. Customs tariff of Saint Lucia. 8 pp. 1908.

No. 13. Customs tariff of Turks and Caicos Islands. 4 pp. 1908.

No. 14. Customs tariff of Bahamas, British West Indies. 12 pp. 1908.

No. 14A. Supplement to customs tariff of Bahamas. 1 p. 1909.

No. 14B. Supplement to customs tariff of Bahamas. 2 pp. 1911.

No. 15. Customs tariff of Italy. 92 pp. 1908.

No. 15A. Supplement to customs tariff of Italy. 6 pp. 1909.

No. 15B. Supplement to customs tariff of Italy. 4 pp. 1911.

No. 16. Preferential tariff of Brazil. 4 pp. 1908.

No. 17. Customs tariff of Australia. 76 pp. 1908.

No. 17A. Supplement to customs tariff of Australia. 2 pp. 1909.

No. 17B. Supplement to customs tariff of Australia. 4 pp. 1910.

No. 17C. Supplement to customs tariff of Australia. 7 pp. 1911.

No. 17D. Supplement to customs tariff of Australia. 13 pp. 1912.

No. 18. Customs tariff of the United Kingdom. 12 pp. 1908.

No. 19. Commercial travelers in foreign countries. 71 pp. 1908.

No. 20. Export tariffs of foreign countries. 48 pp. 1909.

No. 22. Proposed new customs tariff of Argentina. 4 pp. 1909.

No. 24. Consular regulations of foreign countries. 75 pp. 1910.

No. 25. Customs tariff of France. 132 pp. 1910.

No. 26. Tariff relations of Canada. System now in force and proposed concessions to the United States. Mar., 1911. 39 pp. 1911.

No. 27. Customs tariff of Cuba. Revised to Nov., 1911. 89 pp. 1911.

No. 27A. Supplement to customs tariff of Cuba. 1 p. 1911.

No. 28. Customs tariff of Japan. (In press.)

The Bureau issues also from time to time compilations of foreign tariff notes from the Daily Consular and Trade Reports. Nos. 1 to 6 of the series, embodying extracts from the Daily from July 5, 1910, to April 9, 1912, are available for distribution.

BUREAU OF NAVIGATION.

Annual report of the Commissioner of Navigation, 1911. 299 pp. 1911. [There are also available a few copies of the report for each year since 1894, with the exception of 1905 and 1909.]

Seagoing vessels of the United States with official numbers and signal letters. Part VI of the 43d annual list of merchant vessels of the United States for the year ending June 30, 1911. 180 pp., 1l. 1911. [There are also available a limited number of copies of the list for 1908.]

Rules and regulations relating to the anchorage of vessels in the port of New York. (June 15, 1911.) 8 pp., 8 pls. 1911.

Rules for the St. Marys River. Apr. 15, 1911. 14 pp. 1911.

Rules and regulations relating to the anchorage and movement of vessels in harbors of Chicago. May 7, 1909. 6 pp., 1 pl. 1909.

BUREAU OF STANDARDS.

In addition to the tests and comparisons made by the Bureau of Standards, its work includes such researches as are involved in the establishment and maintenance of the various standards and units of measurement, the development of measuring instruments and methods of measurement, the determination of physical constants and the properties of materials. The results of these investigations are published in pamphlet form, and in the following pages is given a list of these papers. They cover a wide range of subjects in the field of physical measurements and are issued for general distribution to the scientific, technical, and industrial interests concerned with the subjects treated. The papers will be sent upon request and may be designated by the numbers which precede the titles in the list. It is assumed that individuals generally are interested in a particular class of work; hence this method of distribution has been adopted in order that each may secure the particular information desired.

These papers are also bound from time to time in the form of a bulletin which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential; also to a limited number of persons especially concerned with the work of the Bureau as a whole. Arrangements are now being made, however, for the sale of copies of the Bulletin to private individuals, of which due announcement will be made.

The regulations under which tests and comparisons are made by the Bureau and other general information concerning its work are issued in the form of circulars, which are sent upon request.

TECHNICAL PAPERS.

1. Recomparison of the United States prototype meter. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 5-19. 1905.
2. A study of the silver voltameter. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 21-37. 1905.
3. The so-called international electrical units. By Frank A. Wolff. Bulletin, vol. 1, 1904-5, p. 39-76. 1905.
4. The spectra of mixed gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 77-81. 1905.
5. On secondary spectra and the conditions under which they may be produced. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 83-94. 1905.
6. Some new rectifying effects in conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 95-100. 1905.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

7. On fibers resembling fused quartz in their elastic properties. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 101-107. 1905.
8. On the temperature of the arc. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 109-124. 1905.
9. The absolute measurement of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 125-152. 1905.
10. The absolute measurement of capacity. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 153-187. 1905.
11. Optical pyrometry. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 189-254. 1905.
12. On the theory of the Matthews and the Russell-Léonard photometers for the measurement of mean spherical and mean hemispherical intensities. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 255-274. 1905.
13. The testing of clinical thermometers. By C. W. Waldner and L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 275-289. 1905.
14. Measurement of inductance by Anderson's method, using alternating currents and a vibration galvanometer. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 291-336. 1905.
15. Use of serpentine in standards of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 337-348. 1905.
16. The silver coulometer. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 349-364. 1905.
17. History of the standard weights and measures of the United States. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 365-381. 1905.
18. Wattmeter methods of measuring power expended upon condensers and circuits of low power factor. By Edward B. Rosa. Bulletin, vol. 1, 1904-5, p. 383-397. 1905.
19. The relative intensities of metal and gas spectra from electrically conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 399-416. 1905.
20. The use of white walls in a photometric laboratory. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 417-420. 1905.
21. Influence of wave form on the rate of integrating induction wattmeters. By E. B. Rosa, M. G. Lloyd, and C. E. Reid. Bulletin, vol. 1, 1904-5, p. 421-434. 1905.
22. Detector for very small alternating currents and electrical waves. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 435-438. 1905.
23. The positive charges carried by the canal rays. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 439-441. 1905.
24. Radiation from platinum at high temperatures. By G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 443-447. 1905.
25. A five-thousand volt generator set. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 449-451. 1905.
26. Talbot's law as applied to the rotating sector disk. By Edward P. Hyde. Bulletin, vol. 2, 1906, p. 1-32. 1906.
27. A new determination of the electromotive force of Weston and Clark standard cells by an absolute electro-dynamometer. By K. E. Guthe. Bulletin, vol. 2, 1906, p. 33-70. 1906.
28. The Gray absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 71-86. 1906.
29. Construction and calculation of absolute standards of inductance. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 87-143. 1906.
30. An efficiency meter for electric incandescent lamps. By E. P. Hyde and H. B. Brooks. Bulletin, vol. 2, 1906, p. 145-160. 1906.
31. Calculation of the self-inductance of single-layer coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 161-187. 1906.
32. Heat treatment of high-temperature mercurial thermometers. By Hobert C. Dickinson. Bulletin, vol. 2, 1906, p. 189-223. 1906.
33. A new potentiometer for the measurement of electromotive force and current. By H. B. Brooks. Bulletin, vol. 2, 1906, p. 225-238. 1906.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

34. Spectrum lines as light sources in polariscopic measurements. By Frederick Bates. Bulletin, vol. 2, 1906, p. 239-248. 1906.
35. Polarimetric sensibility and accuracy. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 249-260. 1906.
36. On the platinum-point electrolytic detector for electrical waves. By L. W. Austin. Bulletin, vol. 2, 1906, p. 261-274. 1906.
37. The influence of frequency upon the self-inductance of coils. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 275-296. 1906.
38. Experiments on the Heusler magnetic alloys. By K. E. Guthe and L. W. Austin. Bulletin, vol. 2, 1906, p. 297-316. 1906.
39. A pocket spectrophotometer. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 317-318. 1906.
40. Preliminary measurements on temperature and selective radiation of incandescent lamps. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 2, 1906, p. 319-329. 1906.
41. Revision of the formulae of Weinstein and Stefan for the mutual inductance of coaxial coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 331-357. 1906.
42. The mutual inductance of two circular coaxial coils of rectangular section. By E. B. Rosa and Louis Cohen. Bulletin, vol. 2, 1906, p. 359-414. 1906.
43. On the determination of the mean horizontal intensity of incandescent lamps by the rotating lamp method. By E. P. Hyde and F. E. Cady. Bulletin, vol. 2, 1906, p. 415-437. 1906.
44. Purity and intensity of monochromatic light sources. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 439-456. 1906.
45. Radiometric investigations of infrared absorption and reflection spectra. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 457-478. 1906.
46. A vacuum radiometer. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 479-483. 1906.
47. On the geometrical mean distances of rectangular areas and the calculation of self-inductance. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 1-41. 1907.
48. The compensated two-circuit electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 43-58. 1907.
49. The complete form of Fechner's law. By P. G. Nutting. Bulletin, vol. 3, 1907, p. 59-64. 1907.
50. A comparison of the unit of luminous intensity of the United States with those of Germany, England, and France. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 65-80. 1907.
51. Geometrical theory of radiating surfaces with discussion of light tubes. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 81-104. 1907.
52. The influence of basic lead acetate on the optical rotation of sucrose in water solution. By F. J. Bates and J. C. Blake. Bulletin, vol. 3, 1907, p. 105-113. 1907.
53. On the colorimetric determination of iron with special reference to chemical reagents. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 115-156. 1907.
54. On sulphocyanic acid. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 157-161. 1907.
55. Radiation from and melting points of palladium and platinum. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 3, 1907, p. 163-208. 1907.
56. The mutual inductance of a circle and a coaxial single-layer coil.—The Lorenz apparatus and the Ayrton-Jones absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 209-236. 1907.
57. On the establishment of the thermodynamic scale of temperature by means of the constant-pressure thermometer. By Edgar Buckingham. Bulletin, vol. 3, 1907, p. 237-238. 1907.
58. An exact formula for the mutual inductance of coaxial solenoids. By Louis Cohen. Bulletin, vol. 3, 1907, p. 295-303. 1907.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

59. The mutual inductance of coaxial solenoids. By E. B. Rosa and Louis Cohen. Bulletin, vol. 3, 1907, p. 305-324. 1907.
60. The production of high-frequency oscillations from the electric arc. By L. W. Austin. Bulletin, vol. 3, 1907, p. 325-340. 1907.
61. An explanation of the short life of frosted lamps. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 341-344. 1907.
62. Melting points of the iron group elements by a new radiation method. By G. K. Burgess. Bulletin, vol. 3, 1907, p. 345-355. 1907.
63. On the determination of the mean horizontal intensity of incandescent lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 3, 1907, p. 357-369. 1907.
64. Simultaneous measurement of the capacity and power factor of condensers. By Frederick W. Grover. Bulletin, vol. 3, 1907, p. 371-431. 1907.
65. A new determination of the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 433-604. 1907.
66. A comparison of the various methods of determining the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 605-622. 1907.
67. Preliminary specifications for Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 3, 1907, p. 623-640. 1907.
68. Calorimetric resistance thermometers and the transition temperature of sodium sulphate. By H. C. Dickinson and E. F. Mueller. Bulletin, vol. 3, 1907, p. 641-661. 1907.
69. On the standard scale of temperature in the interval 0 to 100° C. By C. W. Waldner and H. C. Dickinson. Bulletin, vol. 3, 1907, p. 663-728. 1907.
70. Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 1-80. 1907.
71. The electrode equilibrium of the standard cell. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 81-89. 1907.
72. A comparative study of plain and frosted lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 4, 1907-8, p. 91-120. 1907.
73. The variation of resistances with atmospheric humidity. By E. B. Rosa and H. D. Babcock. Bulletin, vol. 4, 1907-8, p. 121-140. 1907.
74. The self-inductance of a toroidal coil of rectangular section. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 141-148. 1907.
75. On the self-inductance of circles. By E. B. Rosa and Louis Cohen. Bulletin, vol. 4, 1907-8, p. 149-159. 1907.
76. The influence of frequency on the resistance and inductance of solenoidal coils. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 161-173. 1907.
77. The atomic weight of hydrogen. By W. A. Noyes. Bulletin, vol. 4, 1907-8, p. 179-204. 1908.
78. The best method of demagnetizing iron in magnetic testing. By G. W. Burrows. Bulletin, vol. 4, 1907-8, p. 205-274. 1908.
79. A deflection potentiometer for voltmeter testing. By H. B. Brooks. Bulletin, vol. 4, 1907-8, p. 275-300. 1908.
80. The self and mutual inductance of linear conductors. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 301-344. 1908.
81. The atomic weight of chlorine. By W. A. Noyes and H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 345-364. 1908.
82. The preparation of chloroplatinic acid by electrolysis of platinum black. By H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 365-367. 1908.
83. The self-inductance of a coil of any length wound with any number of layers of wire. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 369-381. 1908.
84. Self-inductance of a solenoid of any number of layers. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 383-390. 1908.
85. Instruments and methods used in radiometry. By W. W. Coblentz. Bulletin, vol. 4, 1907-8, p. 391-460. 1908.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

86. A quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 4, 1907-8, p. 461-466. 1908.
87. Apparatus for determination of the form of a wave and magnetic flux. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 4, 1907-8, p. 467-476. 1908.
88. Effect of wave form upon the iron losses in transformers. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 477-510. 1908.
89. The luminous properties of electrically conducting helium gas. By P. G. Nutting. Bulletin, vol. 4, 1907-8, p. 511-523. 1908.
90. Function of a periodic variable given by the steady reading of an instrument; with a note on the use of the capillary electrometer with alternating voltages. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 525-532. 1908.
91. Selective radiation from the Nernst glower. By W. W. Coblentz. Bulletin, vol. 4, 1907-8, p. 533-551. 1908.
92. The testing of glass volumetric apparatus. By N. S. Osborne and B. H. Veazey. Bulletin, vol. 4, 1907-8, p. 553-601. 1908.
93. Formulae and tables for the calculation of mutual and self inductance. By Edward B. Rosa and Louis Cohen. Bulletin, vol. 5, 1908-9, p. 1-132. 1908.
94. Some contact rectifiers of electric currents. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 133-147. 1908.
95. A method for producing feebly damped high-frequency electrical oscillations for laboratory measurements. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 149-152. 1908.
96. On the advantages of a high spark frequency in radio-telegraphy. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 153-157. 1908.
97. Selective radiation from various solids; I. By W. W. Coblentz. Bulletin, vol. 5, 1908-9, p. 159-191. 1908.
98. Remarks on the quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 5, 1908-9, p. 193-198. 1908.
99. Methods of obtaining cooling curves. By George K. Burgess. Bulletin, vol. 5, 1908-9, p. 199-225. 1908.
100. Note on the approximate values of Bessel's functions for large arguments. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 227-230. 1908.
101. The influence of terminal apparatus on telephonic transmission. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 231-241. 1909.
102. The principles involved in the selection and definition of the fundamental electrical units to be proposed for international adoption. By F. A. Wolff. Bulletin, vol. 5, 1908-9, p. 243-260. 1908.
103. The luminous equivalent of radiation. By P. G. Nutting. Bulletin, vol. 5, 1908-9, p. 261-308. 1909.
104. The temperature formula of the Weston standard cell. By F. A. Wolff. Bulletin, vol. 5, 1908-9, p. 309-337. 1909.
105. Radiation constants of metals. By W. W. Coblentz. Bulletin, vol. 5, 1908-9, p. 339-379. 1909.
106. Dependence of magnetic hysteresis upon wave form. By Morton G. Lloyd. Bulletin, vol. 5, 1908-9, p. 381-411. 1909.
107. A new form of standard resistance. By Edward B. Rosa. Bulletin, vol. 5, 1908-9, p. 413-434. 1909.
108. Errors in magnetic testing with ring specimens. By Morton G. Lloyd. Bulletin, vol. 5, 1908-9, p. 435-452. 1909.
109. The testing of transformer steel. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 5, 1908-9, p. 453-482. 1909.
110. A new method of determining the focal length of converging lenses. By Irwin G. Priest. Bulletin, vol. 5, 1908-9, p. 483-497. 1909.
111. A new method for the absolute measurement of resistance. By Edward B. Rosa. Bulletin, vol. 5, 1908-9, p. 499-509. 1909.
112. The theory of coupled circuits. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 511-541. 1909.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

113. A volt scale for a watts-per-candle meter. By Herbert E. Ives. Bulletin, vol. 5, 1908-9, p. 543-547. 1909.
114. The coefficient of reflection of electrical waves at a transition point. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 549-554. 1909.
115. A tungsten comparison lamp in the photometry of carbon lamps. By Herbert E. Ives and L. R. Woodhull. Bulletin, vol. 5, 1908-9, p. 555-558. 1909.
116. The determination of the ratio of transformation and of the phase relations in transformers. By E. B. Rosa and M. G. Lloyd. Bulletin, vol. 6, 1909-10, p. 1-30. 1909.
117. The determination of the magnetic induction in straight bars. By Charles W. Burrows. Bulletin, vol. 6, 1909-10, pp. 31-88. 1909.
118. A method for constructing the natural scale of pure color. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 89-93. 1909.
119. An approximate experimental method for the analysis of EMF waves. By P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 95-106. 1909.
120. Note on the thermoelectric properties of tantalum and tungsten. By W. W. Coblentz. Bulletin, vol. 6, 1909-10, pp. 107-110. 1909.
121. The estimation of the temperature of copper by means of optical pyrometers. By George K. Burgess, assisted by J. J. Crowe. Bulletin, vol. 6, 1909-10, pp. 111-119. 1909.
122. The resolving power of objectives. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 121-124. 1909.
123. The theory of the Hampson liquefier. By Edgar Buckingham. Bulletin, vol. 6, 1909-10, pp. 125-147. 1909.
124. Platinum resistance thermometry at high temperatures. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 6, 1909-10, pp. 149-230. 1909.
125. The daylight efficiency of artificial illuminants. By H. E. Ives. Bulletin, vol. 6, 1909-10, pp. 231-246. 1909.
126. Coupled currents in which the secondary has distributed inductance and capacity. By Louis Cohen. Bulletin, vol. 6, 1909-10, pp. 247-253. 1909.
127. Effect of phase of harmonics upon acoustic quality. By M. G. Lloyd and P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 255-263. 1909.
128. White light from the mercury arc and its complementary. By Herbert E. Ives. Bulletin, vol. 6, 1909-10, pp. 265-271. 1910.
129. The regulation of potential transformers and the magnetizing current. By M. G. Lloyd and P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 273-280. 1909.
130. The determination of the constants of instrument transformers. By P. G. Agnew and T. T. Fitch. Bulletin, vol. 6, 1909-10, pp. 281-299. 1909.
131. Selective radiation from various solids, II. By W. W. Coblentz. Bulletin, vol. 6, 1909-10, pp. 301-319. 1909.
132. Luminous efficiency of the fire fly. By Herbert E. Ives and W. W. Coblentz. Bulletin, vol. 6, 1909-10, pp. 321-336. 1909.
133. Luminosity and temperature. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 337-346. 1909.
134. A theoretical and experimental study of the vibration galvanometer. By F. Wenner. Bulletin, vol. 6, 1909-10, pp. 347-378. 1909.
135. Specific heat of some calcium chloride solutions between -35° C. and $+20^{\circ}$ C. By H. C. Dickinson, E. F. Mueller, and E. B. George. Bulletin, vol. 6, 1909-10, pp. 379-408. 1910.
136. On the definition of the ideal gas. By Edgar Buckingham. Bulletin, vol. 6, 1909-10, pp. 409-429. 1909.
137. Mica condensers as standards of capacity. By Harvey L. Curtis. Bulletin, vol. 6, 1909-10, pp. 431-488. 1911.
138. The mutual induction of two parallel coaxial circles in terms of hypergeometrical series. By Frederick W. Grover. Bulletin, vol. 6, 1909-10, pp. 489-502. 1911.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

139. A new method for the absolute measurement of electric quantity. By Burton McCollum. Bulletin, vol. 6, 1909-10, pp. 503-526. 1911.
140. The comparative sensitiveness of some common detectors of electrical oscillations. By Louis W. Austin. Bulletin, vol. 6, 1909-10, pp. 527-542. 1911.
141. Photometric units and nomenclature. By E. B. Rosa. Bulletin, vol. 6, 1909-10, pp. 543-572. 1911.
142. A modified method for the determination of relative wave-lengths [especially adapted to the establishment of secondary standards]. By Irwin G. Priest. Bulletin, vol. 6, 1909-10, pp. 573-606. 1911.
143. Note on the temperature scale between 100° and 500° C. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 7, 1910-11, pp. 1-11. 1911.
144. A new form of direct-reading candlepower scale and recording device for precision photometers. By George W. Middlekauff. Bulletin, vol. 7, 1910-11, pp. 11-43. 1911.
145. A device for measuring the torque of electrical instruments. By P. G. Agnew. Bulletin, vol. 7, 1910-11, pp. 45-48. 1911.
146. The intensities of some hydrogen, argon, and helium lines in relation to current and pressure. By P. G. Nutting and Orlin Tugman. Bulletin, vol. 7, 1910-11, pp. 49-70. 1911.
147. The temperature coefficient of resistance of copper. By J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 71-101. 1911.
148. The electrical conductivity of commercial copper. By F. A. Wolff and J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 103-126. 1911.
149. On the constancy of the sulphur boiling point. By C. W. Waldner and C. K. Burgess. Bulletin, vol. 7, 1910-11, pp. 127-130. 1911.
150. Note on oscillatory interference bands, and some practical applications. By George O. Squier and Albert C. Crehore. Bulletin, vol. 7, 1910-11, pp. 131-142. 1911.
151. The effect of preliminary heat treatment upon the drying of clays. By A. V. Bleininger. Bulletin, vol. 7, 1910-11, pp. 143-195. 1911.
152. The reflecting power of various metals. By W. W. Coblentz. Bulletin, vol. 7, 1910-11, pp. 197-225. 1911.
153. The action of sunlight and air upon some lubricating oils. By C. E. Waters. Bulletin, vol. 7, 1910-11, pp. 227-234. 1911.
154. The visibility of radiation—A recalculation of König's data. By P. G. Nutting. Bulletin, vol. 7, 1910-11, pp. 235-238. 1911.
155. A photometric attachment for spectroscopes. By P. G. Nutting. Bulletin, vol. 7, 1910-11, pp. 239-241. 1911.
156. Selective radiation from various substances, III. By W. W. Coblentz. Bulletin, vol. 7, 1910-11, pp. 243-294. 1911.
157. The measurement of electrical oscillations in the receiving antenna. By L. W. Austin. Bulletin, vol. 7, 1910-11, pp. 295-299. 1911.
158. Some experiments with coupled high-frequency circuits. By L. W. Austin. Bulletin, vol. 7, 1910-11, pp. 301-314. 1911.
159. Some quantitative experiments in long-distance radiotelegraphy. By L. W. Austin. Bulletin, vol. 7, 1910-11, pp. 315-363. 1911.
160. The behavior of high-boiling mineral oils on heating in the air. By C. E. Waters. Bulletin, vol. 7, 1910-11, pp. 365-376. 1911.
161. The determination of vanadium in vanadium and chrome-vanadium steels. By J. R. Cain. Bulletin, vol. 7, 1910-11, pp. 377-392. 1911.
162. On the computation of the constant C_2 of Planck's equation by an extension of Paschen's method of equal ordinates. By Edgar Buckingham and J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 393-406. 1911.
163. A comparison of American direct-current switchboard voltmeters and ammeters. By T. T. Fitch and C. J. Huber. Bulletin, vol. 7, 1910-11, pp. 407-422. 1911.
164. Study of the current transformer with particular reference to iron loss. By P. G. Agnew. Bulletin, vol. 7, 1910-11, pp. 423-474. 1911.

BUREAU OF STANDARDS—TECHNICAL PAPERS—Continued.

165. Thermodynamics of concentration cells. By H. S. Carhart. Bulletin, vol. 7, 1910-11, pp. 475-494. 1911.
 166. The capacity and phase difference of paraffined paper condensers as functions of temperature and frequency. By F. W. Grover. Bulletin, vol. 7, 1910-11, pp. 495-578. 1911.
 167. The steam-turbine expansion line on the Mollier diagram and a short method of finding the reheat factor. By Edgar Buckingham. Bulletin, vol. 7, 1910-11, pp. 570-617. 1911.
 168. Radiometric investigation of water of crystallization, light filters, and standard absorption bands. By W. W. Coblentz. Bulletin, vol. 7, 1910-11, pp. 619-663. 1911.
 169. Formulas and tables for the calculation of mutual and self-reduction. [2d ed., rev. and enl.] By E. B. Rosa and F. W. Grover. Bulletin, vol. 8, 1911-12, pp. 1-237. 1911.
 170. The correction for emergent stem of the mercurial thermometer. By Edgar Buckingham. Bulletin, vol. 8, 1911-12, pp. 239-267. 1911.
 171. A determination of the international ampere in absolute measure. By E. B. Rosa, N. E. Dorsey, and J. M. Miller. Bulletin, vol. 8, 1911-12, pp. 269-393. 1912.
 172. Deflection potentiometers for current and voltage measurements. By H. B. Brooks. Bulletin, vol. 8, 1911-12, pp. 395-417. 1912.
 173. Outline of design of deflection potentiometers, with notes on the design of moving-coil galvanometers. By H. B. Brooks. Bulletin, vol. 8, 1911-12, pp. 419-444. 1912.
 174. The determination of total sulphur in India rubber. By C. E. Waters and J. B. Tuttle. Bulletin, vol. 8, 1911-12, pp. 445-453. 1912.
 175. The measurement of the inductances of resistance coils. By F. W. Grover and H. L. Curtis. Bulletin, vol. 8, 1911-12, pp. 1-35. 1912.
 176. Luminous properties of electrically conducting helium gas. II. Reproducibility. By P. G. Nutting. Bulletin, vol. 8, 1911-12, pp. 487-494. 1912.
 177. Resistance coils for alternating current work. By H. L. Curtis and F. W. Grover. Bulletin, vol. 8, 1911-12, pp. 1-23. 1912.
 178. The hydrolysis of sodium oxalate in its influence upon the test for neutrality. By William Blum. Bulletin, vol. 8, 1911-12, pp. 1-20. 1912.
 179. Wave-lengths of neon. By Irwin G. Priest. Bulletin, vol. 8, 1911-12, pp. 1-6. 1912.
 180. On the deduction of Wien's displacement law. By Edgar Buckingham. Bulletin, vol. 8, 1911-12. 1911.
- Thermometric lag. By D. R. Harper. 3d. (In press.)
- The four-terminal conductor and the Thomson bridge. By Frank Wenner. (In press.)
- The standardization of potassium permanganate solution by sodium oxalate. By R. S. McBride. (In press.)
- Benzole acid as an acidimetric standard. By George W. Morey. (In press.)
- A tubular electro-dynamometer for heavy currents. By P. G. Agnew. (In press.)

TECHNOLOGIC PAPERS.

1. The effect of preliminary heating treatment upon the drying of clays. By A. V. Blehinger. Dec. 6, 1910. 53 pp., 1 pl., 12 text figs. 1911.
2. The strength of reinforced concrete beams—Results of tests of 333 beams (1st series). By R. L. Humphrey and L. H. Losse. June 27, 1911. 200 pp., 11 pl., 11 charts, 33 text figs. 1912.
3. Tests of the absorptive and permeable properties of Portland cement mortars and concretes, together with tests of damp-proofing and waterproofing compounds and materials. By R. J. Wig and P. H. Bates. Aug. 22, 1911. 127 pp., 6 pls., 64 text figs. 1912.

BUREAU OF STANDARDS—TECHNOLOGIC PAPERS—Continued.

4. The effect of added fatty and other oils upon the carbonization of mineral lubricating oils. By C. E. Waters. Aug. 24, 1911. 14 pp. 1911.
5. The effect of high-pressure steam on the crushing strength of Portland cement mortar and concrete. By R. J. Wig. Sept. 5, 1911. 25 pp., 2 pls., 6 text figs. 1912.
6. The determination of chromium, and its separation from vanadium, in steels. By J. R. Cain. Nov. 1, 1911. 6 pp. 1911.
7. The testing of clay refractories, with special reference to their load-carrying capacity at furnace temperatures. By A. V. Bleininger and G. H. Brown. Dec. 15, 1911. 78 pp., 30 text figs. 1912.
8. A rapid method for the determination of vanadium in steels, ores, etc., based on its quantitative inclusion by the phosphomolybdate precipitate. By J. R. Cain and J. C. Hostetter. Oct. 26, 1911. 20 pp., 2 text figs. 1912.
9. Density and thermal expansion of linseed oil and turpentine. By Henry W. Bearce. 1912. 27 pp. 1912.

BUREAU CIRCULARS.

2. Measurements of length and area, including thermal expansion. 4th ed., rev. and enl., May 1, 1912, superseding 3d ed. of Circular No. 2 on "Metal Tapes." 21 pp.
3. Verification of standards of mass. 2d ed., rev., Jan. 10, 1907. 7 pp.
4. Verification of standards of capacity. 2d ed., rev., Jan. 3, 1905. 2 pp.
5. Testing of clinical thermometers. 2d ed., rev., June 30, 1911. 14 pp.
6. Fees for electric, magnetic, and photometric testing. 4th ed., rev., July 1, 1911. 23 pp.
7. Pyrometer testing and heat measurements. 4th ed., rev., July 15, 1910. 16 pp.
8. Testing of thermometers. 2d ed., rev., June 30, 1911. 52 pp.
9. Testing of glass volumetric apparatus. 5th ed., rev., May 15, 1911. 10 pp.
10. Legal weights (in pounds) per bushel of various commodities. 2d ed., rev., May 15, 1911. 10 pp.
11. The standardization of bomb calorimeters. May 15, 1911. 10 pp.
12. Verification of polariscopic apparatus. July 16, 1906. 7 pp.
13. Standard specifications for the purchase of incandescent electric lamps. 5th ed., rev., May 25, 1912. 16 pp.
14. Analyzed irons and steels—Methods of analysis. 3d ed., June 29, 1912: 12 pp.
15. The international unit of light. 3d ed., July 1, 1911. 7 pp.
16. The testing of hydrometers. 2d ed., rev., May 15, 1911. 14 pp.
17. Magnetic testing. 2d ed., rev., Dec. 1, 1910. 13 pp.
18. Standard gage for sheet and plate iron and steel. 2d ed., July 1, 1911. 4 pp.
19. Standard density and volumetric tables. 2d ed., Sept. 15, 1911. 33 pp.
20. Testing of electrical measuring instruments. Oct. 1, 1909. 31 pp.
21. Precision measurements of resistance and electromotive force. Mar. 1, 1910. 30 pp.
22. Standard specifications for transformers, oil-immersed, self-cooled, 60-cycle, 2,200 volts. 2d ed., May 15, 1911. 12 pp.
23. Standardization of electrical practice in mines. July 15, 1910. 93 pp.
24. Publications of the Bureau of Standards. 3d ed., rev., June 1, 1912. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstract of each title.] (In press.)
25. Standard analyzed samples. General information. 3d ed., rev., June 15, 1911. 14 pp.
26. Analyzed iron and manganese ores. Methods of analysis. 2d ed., rev., Jan. 15, 1911. 19 pp.
27. The testing and properties of optical instruments. Dec. 15, 1910. 15 pp.

BUREAU OF STANDARDS—BUREAU CIRCULARS—Continued.

28. The determination of the optical properties of materials. Mar. 1, 1911. 19 pp.
29. Announcement of a change in the value of the international volt. Dec. 31, 1910. 13 pp.
30. Lime: Its properties and uses. Apr. 15, 1911. 22 pp.
31. Copper wire tables. Apr. 1, 1912. 67 pp.
32. State and municipal regulations for the quality, distribution, and testing of illuminating gas. Apr. 1, 1912. 133 pp.
33. United States Government specification for Portland cement. May 1, 1912. 28 pp.
34. The relation of the horsepower to the kilowatt. (In press.)
35. Melting points of chemical elements. (In press.)

MISCELLANEOUS.

- The international metric system. (Chart.)
- Table of equivalents of the United States customary and metric weights and measures. 3d ed., Nov. 1, 1906. 50 pp.
- The international metric system of weights and measures. 15 pp. 1906.
- State and national laws concerning the weights and measures of the United States. 2d ed. 564 pp. 1912.
- First conference on the weights and measures of the United States. 46 pp. 1905.
- Second annual conference on the weights and measures of the United States. 60 pp. 1906.
- Third annual conference on the weights and measures of the United States. 110 pp. 1910.
- Fourth annual conference on the weights and measures of the United States. 78 pp. 1910.
- Fifth annual conference on the weights and measures of the United States. 123 pp. 1911.
- Sixth annual conference on the weights and measures of the United States. 157 pp. 1912.
- The National Bureau of Standards. [Description of the work of the Bureau.] 24 pp. 1911.
- Report to the international committee on electrical units and standards of a special technical committee appointed to investigate and report on the concrete standards of the international electrical units and to recommend a value for the Weston normal cell. Jan. 1, 1912. 207 pp. 1912.

BUREAU OF STATISTICS.**REGULAR PUBLICATIONS.**

The regular publications of the Bureau of Statistics are as follows:

- Report on the Commerce and Navigation of the United States. (Annual.)
- Statistical Abstract of the United States. (Annual.)
- Imported Merchandise Entered for Consumption in the United States and Duties Collected Thereon. (Quarterly.)
- Advance Sheets from the Summary of Commerce and Finance. (Monthly.)
- Summary of Commerce and Finance of the United States. (Monthly.)
- Bulletin of Exports of Domestic Breadstuffs, Meats and Dairy Products, Food Animals, Cotton, and Mineral Oils. (Monthly.)
- Imports and Exports of the United States (total values, 2 pp.). (Monthly.)
- Internal Commerce of the United States. (Monthly.)
- Sailing Dates of Steamships from Ports in the United States to Ports in Foreign Countries. (Monthly.)

BUREAU OF STATISTICS—REGULAR PUBLICATIONS—Continued.

Applicants to whom the regular publications are of value may have their names placed on the mailing list to receive them regularly, so long as the editions allowed for distribution will permit, upon application to "Chief of the Bureau of Statistics, Department of Commerce and Labor, Washington, D. C."

The following back numbers of reports are available for distribution and can be had free of expense upon application. As the number of copies of the earlier publications remaining for distribution is quite limited, they will be sent only in response to requests from libraries, trade bodies, and other depositories where they will be kept for general reference.

Annual report of commerce and navigation of the United States, fiscal year 1901, 1902 (vol. 1 only), 1903, 1904. 2 vols. 2074 pp.

Same, fiscal years 1905, 1906, 1907, 1908, 1910, and 1911. 1 vol. 1263 pp.

Parts of commerce and navigation:

Annual review of the foreign commerce of the United States and summary tables of commerce. (Fiscal years 1909, 1910, and 1911.) 56 pp.

Tables Nos. 1 and 2. Imports and exports of gold and silver and merchandise into and from the United States by customs districts and countries and by countries and customs districts. (Fiscal years 1909 and 1910.) 82 pp.

Table No. 3. Imports of merchandise into the United States, by articles and countries (five-year tables). (Fiscal years 1909, 1910, and 1911.) 243 pp.

Tables Nos. 4 and 5. Imports of merchandise by articles and customs districts, and summary, by articles. (Fiscal years 1910 and 1911.) 108 pp.

Table No. 6. Exports of domestic merchandise from the United States, by articles and countries (five-year tables). (Fiscal years 1909, 1910, and 1911.) 300 pp.

Tables Nos. 7 and 8. Exports of domestic merchandise by articles and customs districts, and summary, by articles. (Fiscal years 1909, 1910, and 1911.) 69 pp.

Tables Nos. 15 and 16. Imported merchandise entered for consumption in the United States and duties collected thereon, by articles, and total values, by customs districts and ports. (Fiscal years 1910 and 1911.) 87 pp.

Tables Nos. 17 and 18. Drawback paid on articles exported. (Fiscal years 1909-1911.) 18 pp.

Table No. 19. Imports and exports by countries and articles (five-year tables). (Fiscal years 1910 and 1911.) 100 pp.

Tables Nos. 20 and 21. Tonnage movement of American and foreign vessels in the foreign trade of the United States. (Fiscal year 1909.) 75 pp.

Tables Nos. 22 to 56. Commerce of the noncontiguous territory of the United States. (Fiscal years 1910 and 1911.) 30 pp.

Statistical abstract of the United States, 1881, 1882, 1883, 1889, 1891, 1892, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1907, and 1911. 803 pp.

Imported merchandise entered for consumption in the United States and duties collected thereon, quarters ending June 30, Sept. 30, and Dec. 31, 1911, and Mar. 31, 1912.

Monthly summary of commerce and finance. 197 pp. (average).

1893. July, September.

1894. February.

1896. September, October, November, December.

1897. January, February, April, May, November, December.

1898. May, June, August, September, October, November.

1899. March, April, May, October.

1900. April.

1901. March, May, September.

BUREAU OF STATISTICS—REGULAR PUBLICATIONS—Continued.**Monthly summary of commerce and finance—Continued.**

1902. February, March, August, October, November.
 1903. February, March, April, May, July, August, September, October, November, December.
 1904. February, March, April, May, June, July, August, September, November.
 1905. March, April, August, September, November, December.
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 1907. January, February, March, April, May, June, July, August, September, October, December.
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 1910. January, March, April, May, June, July, August, September, October, November, December.
 1911. February, May, July, August, September.
 1912. February, March, April.

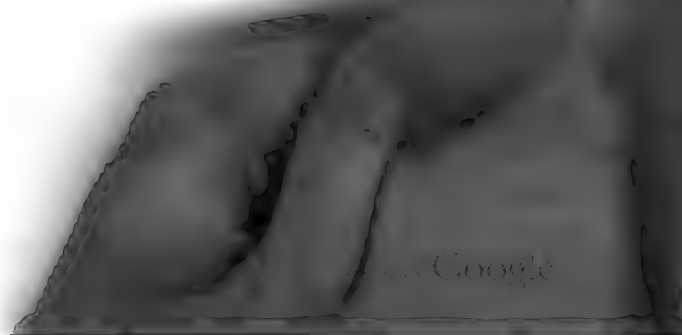
MONOGRAPHS ON SPECIAL SUBJECTS.

Monographs on special subjects are printed from time to time in pamphlet form. No mailing list is kept for these separate publications, as the editions allowed are small, but they are supplied to applicants if on hand. The following are now available for distribution:

- Analysis of the foreign commerce of the United States. 144 pp. 1906.
 Calendar-year statements, total values of imports and exports of merchandise and of gold and silver. 47 pp. 1907, 1908, 1910, and 1911.
 Movement of wholesale prices in Great Britain and the United States. 25 pp. 1904.
 Sugar production and consumption of the world. 112 pp. 1906.
 Statistical abstract of foreign countries. 470 pp. 1909.
 Commercial Russia in 1904. 113 pp. 1905.
 Modern tariff systems. 97 pp. 1902.

STEAMBOAT-INSPECTION SERVICE.

- Annual report of the Supervising Inspector General, Steamboat-Inspection Service, 1911. 378 pp. 1911.
 List of officers of merchant steam, motor, and sail vessels licensed during the year ended Dec. 31, 1911, for a period of five years. 212 pp. 1912.
 Laws governing the Steamboat-Inspection Service. Edition Mar. 27, 1912. 63 pp. 1912.
 General rules and regulations prescribed by the Board of Supervising Inspectors, as amended January, 1912. Edition Apr. 27, 1912. 141 pp., 7 text figs. 1912.
 Pilot rules for certain inland waters of the Atlantic and Pacific coasts and of the coast of the Gulf of Mexico. Edition May 1, 1912. 30 pp., 5 text figs. 1912.
 Pilot rules for the rivers whose waters flow into the Gulf of Mexico and their tributaries and the Red River of the North. Edition Aug. 1, 1911. 22 pp. 5 text figs. 1911.
 Pilot rules for the Great Lakes and their connecting and tributary waters. Edition May 1, 1912. 20 pp., 5 text figs. 1912.



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U. S. Government.

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PREFATORY NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications which are intended for free but judicious distribution. The object of this pamphlet is to acquaint the general public with the titles, sizes, and dates of issue of these publications so far as they are available for distribution at the present time.

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and can also, as a rule, be purchased at a small price by application to the "Superintendent of Documents, Office of the Public Printer, Washington, D. C."

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department. But one frank is required for each package, which may contain several copies if the package does not exceed 4 pounds 6 ounces in weight.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey, and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases, persons receiving publications regularly should give notice promptly of any changes of address, stating specifically the publication or publications received by them.

PUBLICATIONS AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

Annual report of the Secretary of Commerce and Labor, 1912. 144 pp. 1912.
[There are also on hand a limited supply of the Secretary's report for each of the years 1903 to 1911, inclusive.]

Reports of the Department of Commerce and Labor [report of the Secretary and reports of bureaus consolidated], 1912. 881 pp. 1913. [There are also on hand a limited supply of the consolidated reports for each of the years 1904, 1905, 1909, and 1911.]

Annual report of the Chief of Appointment Division, 1912. 38 pp. 1912.
[There are also available a few copies of the annual report for 1911.]

Annual report of the Chief of the Division of Publications, 1912. 35 pp. 1912.
[There are also available a few copies of each of the annual reports from 1907 to 1911, inclusive.]

Fur seals of Alaska. Hearings before the Committee on Ways and Means, House of Representatives, 58th Congress, 2d session. (Mar. 9 and 10, 1904.) 76 pp. 1904.

Report of the commission appointed by the President on September 16, 1906, to investigate the condition of the immigration station at Ellis Island. 38 pp. 1904.

Departmental index; being an alphabetical arrangement of subjects in the statutes relating to the Executive Departments in general. 60 pp. 1905.

Proceedings of the first annual meeting of the National Council of Commerce, Washington, D. C., December 10, 1908. 28 pp. 1909.

Promotion of commerce in France. By Morris Jacobson, internal-commerce expert. 18 pp. 1908.

Views of the Department of Commerce and Labor on the bill to regulate corporations engaged in interstate and foreign commerce. Letter from the Secretary of Commerce and Labor to the chairman of the Committee on Interstate and Foreign Commerce, House of Representatives, concerning House bill 35, Sixty-second Congress, first session, 1911. 11 pp. 1911.

Opinions of the Solicitor for Department of Commerce and Labor dealing with workmen's compensation under the act of Congress granting to certain employees of the United States the right to receive from it compensation for injuries sustained in the course of their employment, approved May 30, 1908. (From August, 1908, to August, 1912.) 646 pp. 1912.

Condensed history, duties, and practical operation of the Department of Commerce and its several bureaus and offices, together with laws relating specifically thereto. April 1, 1913. (In press.)

List of publications of the Department of Commerce available for distribution. 9th edition, May 1, 1913. 63 pp. 1913.

In addition to the foregoing, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

BUREAU OF THE CENSUS.

Requests for publications of the Bureau of the Census should be addressed to "The Director of the Census, Washington, D. C."

TENTH CENSUS (1880) REPORTS.

- Agriculture: Including cereal production; flour-milling processes; tobacco; meat production. 1149 pp.
- Cotton production, Part I—Mississippi Valley and Southwestern States. 924 pp.
- Same, Part II—Eastern, Gulf, Atlantic, and Pacific States. 848 pp.
- Defective, dependent, and delinquent classes of the population. 638 pp.
- Manufactures: Including power used; the factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass. 1248 pp.
- Mining industries (exclusive of precious metals). 1064 pp.
- Mining laws and regulations—United States, State, Territorial, and local. 716 pp.
- Mortality and vital statistics, Part I—General death rate; sex in relation to deaths; relations of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 pp.
- Same, Part II—Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 pp.
- Newspaper and periodical press; Alaska; seal islands; shipbuilding. 1122 pp.
- Oyster industry. 251 pp.
- Petroleum; coke; building stones; the quarry industry. 872 pp.
- Power and machinery employed in manufactures: Including steam and water power used in the manufacture of iron and steel; machine tools and wood-working machinery; steam pumps and pumping engines; wool and silk machinery; engines and boilers; marine engines and steam vessels; the ice industry. 660 pp.
- Social statistics of cities, Part I—New England and Middle States. 924 pp.
- Same, Part II—Southern and Western States. 850 pp.
- Transportation, agencies of: Including steam railroads; steam navigation; canals; telegraphs and telephones; postal-telegraph service in foreign countries; express companies. 870 pp.
- Valuation, taxation, and public indebtedness. 920 pp.
- Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts. 792 pp.
- Water power, Part I—The streams of eastern New England; the region tributary to Long Island Sound; the Hudson River Basin and Lake George outlet; the region tributary to Lake Ontario, and the New York State canals; the drainage basins of Lakes Huron and Erie, and Niagara Falls and River; the Middle Atlantic watershed; the Southern Atlantic watershed; the Eastern Gulf slope. 874 pp.
- Same, Part II—The Northwest; the Mississippi River and some of its tributaries; the region tributary to the Mississippi River on the west, below Dubuque; the Ohio River Basin and the Ohio State canals; the water supply of certain cities and towns of the United States. 788 pp.

ELEVENTH CENSUS (1890) REPORTS.

- Abstract. 312 pp.
- Agriculture by irrigation. 336 pp.
- Agriculture, irrigation, and fisheries. 998 pp.
- Alaska, population and resources of. 294 pp.
- Churches. 840 pp.
- Compendium, Part I—Population; dwellings and families; Alaska. 1098 pp.
- Same, Part II—Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1070 pp.

Same, Part III—Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians, taxed and not taxed. 1158 pp.

Crime, pauperism, and benevolence, Part I—Analysis. 420 pp.

Eastern Cherokees of North Carolina. 24 pp.

Education. 141 pp.

Farms and homes: Proprietorship and indebtedness. 658 pp.

The Five Civilized Tribes in the Indian Territory. 70 pp.

Insane, feeble-minded, deaf and dumb, and blind. 768 pp.

Insurance business, Part I—Fire, marine, and inland insurance. 1138 pp.

Same, Part II—Life insurance. 490 pp.

Manufacturing industries, Part I—Totals for States and industries; motive power used. 1002 pp.

Same, Part II—Statistics of cities. 827 pp.

Same, Part III—Selected industries: Including textiles; electrical industries in the State of New York; chemicals and allied products; glass; coke; refining of petroleum; glue; iron and steel; cast-iron pipe; wrought-iron and steel pipe; locomotives; clay products; shipbuilding; salt; forest industries; newspapers and periodicals; gas. 733 pp.

Mineral industries. 874 pp.

Occupations, census of 1890. 127 pp.

Population, Part II—Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1140 pp.

Real estate mortgages. 956 pp.

Textiles, census of 1890. 236 pp.

Transportation business, Part II—Transportation by water. 532 pp.

Vital and social statistics, Part I—Analysis and rate tables. 1077 pp.

Same, Part II—Cities of 100,000 population and upward. 1191 pp.

Same, Part III—Statistics of deaths. 1057 pp.

Same, Part IV—Statistics of deaths. 1039 pp.

Vital statistics of Boston and Philadelphia. 278 pp.

Vital statistics of the District of Columbia and Baltimore. 250 pp.

Vital statistics of New York and Brooklyn. 538 pp.

Wealth, debt, and taxation, Part I—Public debt. 902 pp.

Same, Part II—Valuation and taxation. 662 pp.

TWELFTH CENSUS (1900) REPORTS.

Abstract. 470 pp.

Agriculture, Part I—Farms, live stock, and animal products. 1003 pp.

Same, Part II—Crops and irrigation. 880 pp.

Employees and wages: 1890 and 1900. 1344 pp.

Manufactures, Part I—United States, by industries. 1039 pp.

Same, Part II—By States and Territories. 1111 pp.

Same, Part III—Selected industries: Including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleo-margarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1143 pp.

Same, Part IV—Selected industries: Including iron and steel; tin and terne plate; lead, copper, and zinc, smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appli-

ances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watch cases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 pp.

Manufactures—Textiles (monograph). 258 pp.

Occupations at the Twelfth Census. 1029 pp.

Population, Part I—By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in the United States. 1236 pp.

Revenue systems of State and local governments. 211 pp.

Supplementary analysis and derivative tables (based on statistics of the Twelfth Census). 1162 pp.

Wealth, debt, and taxation. 1246 pp.

Same, Abstract. 31 pp.

REPORTS OF THE PERMANENT CENSUS.

Benevolent institutions: 1904. 335 pp.

The blind and the deaf: 1900. 274 pp.

Central electric light and power stations: 1902. 185 pp.

A century of population growth from the First Census of the United States to the Twelfth: 1790-1900. 313 pp.

Electrical industries: 1902. 822 pp.

Express business in the United States: 1907. 28 pp.

Fisheries: 1908—Persons employed, salaries, and wages; capital and equipment; products; canning and preserving; exports and imports. 324 pp.

Insane and feeble-minded in hospitals and institutions: 1904. 238 pp.

Manufactures: 1905—Part I. United States by industries. 1030 pp.

Same, Part III. Selected industries: Including combined textiles; cotton; hosiery and knit goods; wool; silk; flax, hemp, and jute products; dyeing and finishing textiles; buttons; needles, pins, and hooks and eyes; oilcloth and linoleum; boots and shoes; leather, tanned, curried, and finished; leather gloves and mittens; butter, cheese, and condensed milk; flour and grist mill products; starch; canning and preserving; rice, cleaning and polishing; beet sugar; slaughtering and meat packing; manufactured ice; salt; cottonseed products; tobacco; lumber and timber products; turpentine and rosin; paper and wood pulp; printing and publishing; pens and pencils; glass; clay products. 968 pp.

Same, Part IV. Selected industries: Including iron and steel; tin and terne plate; copper, lead, and zinc, smelting and refining; agricultural implements; electrical machinery, apparatus, and supplies; metal-working machinery; musical instruments, attachments, and materials; automobiles; bicycles and tricycles; carriages and wagons; shipbuilding; the steam and street railroad car industry; chemicals and allied products; coke; petroleum refining; power employed; earnings of wage earners. 856 pp.

Marriage and divorce: 1867-1906—Part II. General tables. 850 pp.

Mines and quarries: 1902. 1153 pp.

Mortality: 1900-1904. 1003 pp.

Same, 1905, 360 pp.; 1906, 486 pp.; 1907, 538 pp.; 1909, 810 pp.

Paupers in almshouses: 1904. 216 pp.

Prisoners and juvenile delinquents in institutions: 1904. 295 pp.

Religious bodies: 1906—Part I. Summary and general tables. 576 pp.

Same, Part II. Separate denominations: History, description, and statistics. 670 pp.

Statistics of cities having a population of over 30,000: 1905. 372 pp.

Same, 1906, 358 pp.; 1907, 548 pp.; 1909, 279 pp.; 1910, 308 pp.

Street and electric railways: 1902. 451 pp.

Telephones and telegraphs: 1902. 184 pp.

Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 pp.

Transportation by water: 1906. 240 pp.

Women at work, statistics of (based on schedules of the Twelfth Census, 1900). 399 pp.

BULLETINS OF THE PERMANENT CENSUS.

[To accommodate for alphabetical arrangement, the bulletin number is placed at conclusion of title.]

The following is a complete list of the bulletins of the permanent Census Bureau available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Many others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census, or of such important preliminary statistics as may be rapidly tabulated. Still others represent a condensation or summarization of material contained in the reports proper. These facts and figures are presented in this form in order that separate distribution may be made of material bearing on particular subjects, or for the purpose of more prompt presentation thereof.

MISCELLANEOUS.

- Age statistics, a discussion of: 1880, 1890, 1900—13. 53 pp.
- Child labor in the United States: Twelfth Census, 1900—69. 200 pp.
- Commercial valuation of railway operating property in the United States: 1904—21. 88 pp.
- Cotton ginned in the United States: Crops of 1899 to 1902, inclusive—2. 46 pp.
- Cotton production: 1905^a—40. 72 pp.
- Same, 1906—76. 68 pp.
- Same, 1907—95. 58 pp.
- Same, 1908—100. 52 pp.
- Same, 1909—107. 64 pp.
- Same, 1910^a—111. 66 pp.
- Same, 1911—114. 61 pp.
- Cotton supply and distribution for the year ending Aug. 31, 1905—25. 15 pp.
- Same, 1907—90. 26 pp.
- Same, 1908—97. 40 pp.
- Same, 1909—106. 32 pp.
- Same, 1910—110. 32 pp.
- Same, 1911—113. 31 pp.
- Same, 1912—115. 31 pp.
- Earnings of wage earners (a study based on census of manufactures, 1905)—93. 179 pp.
- Electrical industries of Porto Rico: 1907—99. 29 pp.
- Estimates of population: 1904, 1905, 1906—71. 28 pp.
- Estimates of population of the larger cities of the United States in 1901, 1902, and 1903—7. 21 pp.
- Executive civil service of the United States, statistics of employees: 1904—12. 239 pp.
- Same, 1907—94. 164 pp.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 pp.
- Illiteracy in the United States (a study based on reports of the Twelfth and preceding censuses)—26. 54 pp.
- Increase of population: 1890 to 1900, a discussion of—4. 63 pp.
- Industrial districts: 1905. Manufactures and population—101. 81 pp.
- Insular and municipal finances in Porto Rico for the fiscal year 1902-3—24. 31 pp.
- Irrigation in the United States: 1902—16. 92 pp.
- Marriage and divorce: 1887-1906—96. 71 pp.

^a The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

- Mineral industries of Porto Rico: 1902—6. 18 pp.
 Mines and quarries: 1902—9. 59 pp.
 Mortality statistics: 1908—104. 133 pp.
 Same, 1910—109. 191 pp.
 Municipal electric fire alarm and police patrol systems: 1902—11. 33 pp.
 Negroes in the United States: 1900—8. 333 pp.
 Population of Oklahoma and Indian Territory: 1907—89. 43 pp.
 Proportion of children in the United States (a study based on reports of the Twelfth and preceding censuses)—22. 27 pp.
 Proportion of the sexes in the United States (a study based on reports of the Twelfth and preceding censuses)—14. 51 pp.
 Religious bodies: 1906 (2d ed., rev. and enl.)—103. 149 pp.
 Statistics of cities having a population of 8,000 to 25,000: 1903—45. 231 pp.
 Statistics of cities having a population of over 25,000: 1902 and 1903—20. 481 pp.
 Statistics of cities having a population of over 30,000: 1904—50. 209 pp.
 Same, 1907, abstract of annual report—105. 94 pp.
 Supervisors' districts for the Thirteenth Census: 1910—98. 19 pp.
 Teachers, statistics of (a study based on reports of the Twelfth and preceding censuses)—23. 20 pp.
 Telegraph systems: 1907—102. 47 pp.
 Telephones and telegraphs: 1902—17. 49 pp.
 Transportation by water: 1906. United States—91. 57 pp.
 Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 pp.

MANUFACTURES, CENSUS OF 1905.

Special industries.

The statistics presented in these bulletins are reproduced in Parts III and IV of the Report on Manufactures, 1905.

- Agricultural implements—75. 31 pp.
 Automobiles and bicycles and tricycles—66. 37 pp.
 Boots and shoes, leather, and leather gloves and mittens—72. 81 pp.
 Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 pp.
 Canning and preserving, rice cleaning and polishing, and the manufacture of beet sugar—61. 69 pp.
 Carriages and wagons, and the steam and street railroad car industry—84. 75 pp.
 Chemicals and allied products—92. 124 pp.
 Copper, lead, and zinc, smelting and refining—86. 32 pp.
 Coke—65. 57 pp.
 Electrical machinery, apparatus, and supplies—73. 73 pp.
 Glass and clay products—62. 107 pp.
 Iron and steel and tin and terne plate—78. 105 pp.
 Lumber and timber products—77. 69 pp.
 Metal-working machinery—67. 18 pp.
 Musical instruments, attachments, and materials—82. 34 pp.
 Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum and turpentine and rosin—85. 51 pp.
 Petroleum refining—70. 57 pp.
 Power employed in manufactures—88. 27 pp.
 Printing and publishing—79. 133 pp.
 Shipbuilding—81. 29 pp.
 Slaughtering and meat packing, manufactured ice, and salt—83. 83 pp.
 Textiles—74. 212 pp.
 Tobacco—87. 33 pp.

States and Territories.

The statistics presented in these bulletins are reproduced in Part II of the Report on Manufacturers, 1905.

United States—57. 93 pp.
Alabama—43. 23 pp.
Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 pp.
California, Oregon, and Washington—49. 73 pp.
Colorado, Idaho, Nevada, and Utah—37. 49 pp.
Connecticut—42. 39 pp.
Delaware—31. 15 pp.
Florida—33. 17 pp.
Georgia—55. 23 pp.
Illinois—52. 53 pp.
Indiana—38. 37 pp.
Iowa—32. 27 pp.
Kansas—28. 25 pp.
Kentucky and Tennessee—47. 45 pp.
Louisiana, Mississippi, and Texas—48. 57 pp.
Maine—51. 25 pp.
Maryland and District of Columbia—27. 33 pp.
Massachusetts—53. 79 pp.
Michigan (statistics for 1904)—18. 35 pp.
Minnesota—46. 27 pp.
Missouri and Arkansas—35. 47 pp.
Montana, North Dakota, South Dakota, and Wyoming—34. 39 pp.
Nebraska—29. 19 pp.
New Hampshire and Vermont—41. 35 pp.
New Jersey—54. 53 pp.
New York—59. 101 pp.
North Carolina and South Carolina—39. 37 pp.
Ohio—58. 61 pp.
Pennsylvania—60. 81 pp.
Rhode Island—36. 29 pp.
Virginia and West Virginia—44. 43 pp.
Wisconsin—56. 39 pp.

MISCELLANEOUS PERMANENT CENSUS PUBLICATIONS.

FOREST PRODUCTS.

These publications, of octavo size, issued yearly, are compiled in cooperation with the Forest Service, Department of Agriculture. Nos. 1 to 9, inclusive, are consolidated, without change, and issued as No. 10.

No. 1. Pulp-wood consumption: 1908. 12 pp.
Same, 1909. 15 pp.
Same, 1910. 10 pp.
No. 2. Lumber, lath, and shingles: 1908. 57 pp.
Same, 1909. 63 pp.
Same, 1910. 45 pp.
No. 3. Slack cooperage stock: 1907. 11 pp.
Same, 1909. 14 pp.

- No. 4.^a Tanbark and tanning extracts: 1907. 10 pp.
 Same, 1908. 10 pp.
 Same, 1909. 14 pp.
 No. 5. Veneers: 1907. 9 pp.
 Same, 1908. 13 pp.
 Same, 1909. 23 pp.
 No. 6. Tight cooperage stock: 1907. 11 pp.
 Same, 1909. 14 pp.
 No. 7. Wood distillation: 1907. 8 pp.
 Same, 1909. 11 pp.
 Same, 1910. 5 pp.
 No. 8. Crosssties purchased: 1907. 6 pp.
 Same, 1908. 8 pp.
 Same, 1909. 11 pp.
 Same, 1910. 8 pp.
 No. 9. Poles purchased: 1907. 8 pp.
 Same, 1908. 8 pp.
 Same, 1909. 14 pp.
 Same, 1910. 7 pp.
 No. 10.¹ Forest products of the United States: 1908. 137 pp.
 Same, 1909. 178 pp.

HEADS OF FAMILIES—FIRST CENSUS OF THE UNITED STATES: 1790.

These volumes, of quarto size, are for sale only, at the price of \$1 for each State; remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the present States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 pp.); Maine (105 pp.); Maryland (189 pp.); Massachusetts (363 pp.); New Hampshire (146 pp.); New York (308 pp.); North Carolina (292 pp.); Pennsylvania (426 pp.); Rhode Island (71 pp.); South Carolina (150 pp.); Vermont (95 pp.); Virginia, State enumerations, from 1782 to 1785 (189 pp.).

PHILIPPINE ISLANDS, CENSUS OF 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish; both editions are now exhausted. However, three bulletins, compiled from these reports, in English only, are available.

- No. 1. Population of the Philippines. 100 pp.
 No. 2. Climate of the Philippines. 103 pp.
 No. 3. Volcanoes and seismic centers of the Philippine Archipelago. 80 pp.

CUBA, CENSUS OF 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand in the United States for information regarding Cuba the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. Both volumes are of octavo size.

Cuba: Population, history, and resources: 1907 (compendium). 275 pp.

VITAL STATISTICS.

International classification of causes of sickness and death: 1910. 146 pp.

Legal importance of registration of births and deaths: 1908. 32 pp.

Manual of international list of causes of death: 1911. 297 pp.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 pp.

Physicians' pocket reference to the international list of causes of death: 1910. 20 pp.

Practical registration methods: 1903. 29 pp.

Tuberculosis in the United States: 1908. 67 pp.

MISCELLANEOUS.

American census taking. 34 pp.

Census Office and coordination of statistics. 43 pp.

Collaboration in Federal and State statistical work. 73 pp.

Cooperation and unification in Federal and State statistical work. 48 pp.

History and growth of United States census: 1790-1890. 967 pp.

Report of the Director of the Census to the Secretary of Commerce and Labor concerning the administration of the permanent bureau: 1903.

Reports of the Director of the Census to the Secretary of Commerce and Labor concerning the operations of the bureau for each fiscal year, 1904-5 to 1911-12.

Standard form for reporting the financial statistics of public schools: 1911. 28 pp.

Uniform accounts as a basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 pp.

Uniform accounts for systems of water supply: 1911. 44 pp.

Uniform municipal accounting: 1906. 121 pp.

THIRTEENTH (1910) CENSUS PUBLICATIONS.

Thirteenth Census publications consist of advance bulletins and final publications. The bulletins consist of State series for agriculture, manufactures, and population (one showing number of inhabitants by counties and minor civil divisions, and the other showing composition and characteristics of population), and a series for irrigation for the arid States; also abstract bulletins and special bulletins for the United States, and miscellaneous bulletins, as follows:

BULLETINS.

Abstract bulletins.

Population:

Number and distribution of inhabitants.

Color or race, nativity, parentage, sex, and males of voting and militia ages.

School attendance and illiteracy.

Age and marital condition.

Country of birth.

State of birth.

Agriculture:

Farms and farm property.

General farm crops.

Live stock on farms and elsewhere.

Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms.

Crops.

Live stock products.

Irrigation:

Irrigation.

Manufactures:

Manufactures for States, cities, and industries.

Mines:

Mining industries.

*Special bulletins.***Population:**

Population of counties and equivalent subdivisions.

Total population and area, by States and Territories.

Population of cities.

Miscellaneous bulletins.

Population of New York by enumeration districts.

Center of population and median lines, continental United States.

Population of counties and minor civil divisions, 1910, 1900, and 1890.

Cities and their suburbs.

Population of incorporated places.

Irrigation for rice growing—Louisiana, Texas, and Arkansas.

Irrigation in Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas (exclusive of irrigation for rice).

The advance bulletins are intended as preliminary to the final publications and are being rapidly exhausted.

The final publications consist of the Abstract for the United States (569 pages), which is practically a collection of the abstract bulletins; a series of Abstracts, with a supplement for each State containing more detailed information for the individual State; and a set of final reports of 11 volumes, as follows:

REPORTS.**Population:**

Volume I.—General report and analysis.

Volume II.—Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana.

Volume III.—Reports by States, with statistics for counties, cities, and other civil divisions—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico.

Volume IV.—Occupation statistics.

Agriculture:

Volume V.—General report and analysis.

Volume VI.—Reports by States, with statistics for counties—Alabama to Montana.

Volume VII.—Reports by States, with statistics for counties—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico.

Manufactures:

Volume VIII.—General report and analysis.

Volume IX.—Reports by States, with statistics for principal cities.

Volume X.—Reports for principal industries.

Mining:

Volume XI.—Mines and quarries.

UNITED STATES COAST AND GEODETIC SURVEY.

The publications here listed are, with a few exceptions, arranged chronologically under their respective subjects. They can be obtained free of charge on application to the Chief of the Division of Publications, Department of Commerce, Washington, D. C., except Coast Pilots and Tide Tables, which are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing, and Chart Catalogues, which can be obtained free of charge on application to the Superintendent of the Coast and Geodetic Survey. The "List and Catalogue," which is a bibliography of the publications issued by this Bureau, may be consulted at any public library.

ANNUAL REPORTS.

Report of the Superintendent of the Coast and Geodetic Survey, showing the progress of the work from July 1, 1911, to June 30, 1912. 106 pp., 1 chart, 9 progress sketches in separate pocket. 1912. [There are also on hand a limited supply of each of the annual reports for the years 1852, 1853, 1856, 1860, 1861, 1868, 1873, 1874, 1876-1885, 1887-1889, 1892-1895, 1900, 1901, 1903, 1904, 1908-1911.]

GEODESY.

Standard mean places of circumpolar and time stars, prepared for the use of the U. S. Coast Survey. By B. A. Gould. 2d ed. 15 pp. 1866.

Reports of observations of the eclipse of the sun on August 7, 1869, made by parties of the United States Coast Survey, at the following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under the immediate direction of the Superintendent of the Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts and plates nos. 24, 25, and 26, 16 figs., 1 map, 2 diag.

Reports of observations upon the total solar eclipse of December 22, 1870. Report for 1870, apps. 16 and 16a, p. 115-177 and 220-232, 8 figs., 1 pl., 1 diag.

Errata in the Hells catalogue of stars. Report for 1873, app. 15, p. 175-180.

Geographical positions of prominent places in the United States determined astronomically or geodetically by the United States Coast Survey. Report for 1874, app. 6, p. 62-65.

Description of two forms of portable apparatus for the determination of personal equation, both relative and absolute, in observations of star transits. By J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig., 1 diag.

Field catalogue of 983 transit stars. Mean places for 1870.0. By G. Davidson, 33 pp. 1874.

Comparison of the methods of determining heights by means of leveling, vertical angles and barometric measures, from observations at Bodega Head and Ross Mountain, California. By George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 figs. [Reprinted from report of 1871, app. 16.]^a

Observations of atmospheric refraction—Contribution No. II. Determination of several heights by the spirit-level, and measures of refraction by zenith-distances, also observations of the barometer at Ragged Mountain, Maine, in July, August, and September, 1874. By F. W. Perkins. Results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a

On atmospheric refraction and adjustment of hypsometric measures—Contribution No. III. Determination of the coefficient of refraction from zenith-distances observed in northern Georgia, by C. O. Boutelle and F. P. Webster, in 1873 and 1874, and adjustment of differences of heights by application of the method of least squares. Discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 figs.^a

^a No. 19 of 1876 is also bound with these appendices, and appears under "Allied subjects."

- On the adaptation of triangulations to various conditions, depending on the configuration or orographic character of a country and on the degree of accuracy aimed at, with due consideration of the time and means available; also notes on the method of observing horizontal angles and directions in geodetic surveys. By Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 figs. [Reprinted, with additions, from the report for 1871, app. 15.]
- The Pamlico-Chesapeake arc of the meridian and its combination with the Nantuxet and the Peruvian arcs, for a determination of the figure of the earth from American measures. By Charles A. Schott. Report for 1877, app. 6, p. 84-95.
- Description of an improved open vertical clamp for the telescopes of theodolites and meridian instruments, devised by George Davidson. Report for 1877, app. 13, p. 182-183, 1 fig.
- Observations of the transit of Mercury, May 6, 1878, made at Summit station, Central Pacific Railroad. By B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl., 1 sketch (27).
- Observations made at Washington, D. C., of the transit of Mercury, May 6, 1878. By Charles A. Schott. Report for 1878, app. 7, p. 88-91.
- Adjustment of the primary triangulation between the Kent Island and Atlanta base-lines. By Charles A. Schott. Report for 1878, app. 8, p. 92-120, 1 fig.
- Description of the Davidson meridian instrument. By George Davidson. Report for 1879, app. 7, p. 103-109, 1 pl.
- Comparison of local deflections of the plumb-line in latitude, longitude, and azimuth, at stations of the oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids. By C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.
- On instruments and methods used for precise leveling in the Coast and Geodetic Survey. By O. H. Tittmann. Report for 1879, app. 15, p. 202-211, 1 fig., 1 pl., 1 diag.
- Observations to determine the refraction on lines passing near a surface of water, made at different elevations across the Potomac River. By Andrew Braid. Report for 1879, app. 16, p. 212, 213.
- Report on the results of the longitudes of the Coast and Geodetic Survey determined up to the present time by means of the electric telegraph, together with their preliminary adjustment by the method of least squares. By Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag.
- Explanation of apparatus for observation of telegraphic longitudes, with directions for its use. By Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diags. (84 and 85).
- Report on geodesic night signals. By Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig., 1 pl., 1 diag. (86 and 87).
- Report on geodesic leveling on the Mississippi River. By Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diags. (sketches 45, 46, 47).
- An account of a perfected form of the contact-slide base apparatus used in the Coast and Geodetic Survey. By J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. (sketch 82, figs. 1-8).
- Meteorological researches. By William Ferrel. Part III. Barometric hypsometry and reduction of the barometer to sea-level. Report for 1881, app. 10, p. 225-268, illus. 38.
- On a method of readily transferring the underground terminal marks of a base line. By O. H. Tittmann. Report for 1881, app. 13, p. 357, 358.
- On the flexure of pendulum supports. By C. S. Peirce. Report for 1881, app. 14, p. 359-441.
- On the deduction of the ellipticity of the earth from pendulum experiments. By C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.
- On a method of observing the coincidence of vibration of two pendulums. By C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 figs.
- On the value of gravity at Paris. By C. S. Peirce. Report for 1881, app. 17, p. 461-463.

- Description and construction of a new compensation primary base apparatus, including the determination of the length of the corresponding five-meter standard bars. By Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 figs., 2 diags.
- Report of the measurement of the Yolo base, Yolo County, Cal. By George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig., 1 sketch, 2 diags.
- The total solar eclipse of January 11, 1880, observed at Mount Santa Lucia, California. By George Davidson. Report for 1882, app. 20, p. 463-468, 2 diags.
- A new reduction of La Caille's observations, made at the Cape of Good Hope and at Paris between 1749 and 1757, and given in his "Astronomiæ Fundamenta," together with a comparison of the results with the Bradley-Bessel "Fundamenta;" also a catalogue of the places of 150 stars south of declination -30° , for the epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.
- Report of a conference on gravity determinations, held at Washington, D. C., in May, 1882. Report for 1882, app. 22, p. 503-516.
- Results for the length of the primary base-line in Yolo County, Cal., measured in 1881 by the party of George Davidson. Computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag.
- Results of observations for atmospheric refraction on the line Mount Diablo to Martinez, California, in connection with hypsometric measures by spirit level, the vertical circle and the barometer, made in March and April, 1880, by George Davidson. Reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag.
- Observations of the transit of Venus of December 6, 1882, at Washington, D. C., and at Tepusquet station, California, and at Lehman's ranch, Nevada. By C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.
- Field catalogue of 1,278 time and circumpolar stars. Mean places for 1885.0. By George Davidson. Report for 1883, app. 18, p. 383-471.
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., in 1879 and 1880. By Charles S. Peirce. Report for 1883, app. 19, p. 473-487.
- The run of the micrometer. By George Davidson. Report for 1884, app. 8, p. 377-385.
- Connection at Lake Ontario of the primary triangulation of the Coast and Geodetic Survey with that of the Lake survey. Observations by Charles O. Boutele. Discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map (illus. 20).
- Results of a trigonometrical determination of the heights of the stations forming the Davidson quadrilaterals. California. Observations by George Davidson, 1876-1882. Discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 figs.
- Longitudes deduced in the Coast and Geodetic Survey from determinations by means of the electric telegraph between the years 1846 and 1885. Second adjustment. By Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. (illus. 21).
- Determinations of gravity with the Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal., and Washington, D. C. By Edwin Smith. Report for 1884, app. 14, p. 439-473.
- On the use of the noddy for measuring the amplitude of swaying in a pendulum support. By C. S. Peirce. Report for 1884, app. 15, p. 475-482.
- Note on the effect of the flexure of a pendulum upon its period of oscillation. By C. S. Peirce. Report for 1884, app. 16, p. 483-485.
- Geographical positions of trigonometrical points in the States of Massachusetts and Rhode Island, determined by the United States Coast and Geodetic Survey between the years 1835 and 1885, and including those determined by the Borden survey in the years 1832 to 1838. By Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps (illus. 25, 26).

Results deduced from the geodetic connection of the Yolo base line with the primary triangulation of California. Also a reduction and adjustment of the Davidson quadrilaterals forming part of that triangulation. By Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.

Note on a device for abbreviating time reductions. By C. S. Peirce. Report for 1885, app. 15, p. 503-508.

On the influence of a noddy on the period of a pendulum. By C. S. Peirce. Report for 1885, app. 16, p. 509, 510.

On the effect of unequal temperature upon a reversible pendulum. By C. S. Peirce. Report for 1885, app. 17, p. 511, 512.

Fluctuations in the level of Lake Champlain and average height of its surface above the sea. A preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. (illus. 33).

Heights from spirit-levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, in 1885-86. Report by Charles A. Schott. Report for 1887, app. 9, p. 185-206.

Report of the results of spirit-leveling of precision about New York Bay and vicinity in 1886 and 1887. Observations by John B. Weir and J. E. McGrath. Discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map (illus. 43).

A bibliography of geodesy. By J. Howard Gore. Report for 1887, app. 16, p. 313-512.

Geographical positions of trigonometrical points in the State of Connecticut, determined by the U. S. Coast and Geodetic Survey between the years 1833 and 1886. Introduction and explanation of the tabular results. By Charles A. Schott. Report for 1888, app. 8, p. 313-403, map.

Heights from spirit-leveling of precision between Mobile, Ala., and Okolona, Miss. Observations by J. B. Weir and J. E. McGrath, in 1884, 1886, and 1887. Report by Charles A. Schott. Report for 1888, app. 10, p. 409-426.

Heights from spirit-leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark. Report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453.

Heights from spirit-leveling of precision between Arkansas City (on the Mississippi River) and Little Rock, Ark. Observations by J. E. McGrath, in 1887-88. Report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.

Differential method of computing the apparent places of stars for determinations of latitude. By E. D. Preston. Report for 1888, app. 13, p. 465-470.

Determinations of latitude and gravity for the Hawaiian government. By E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pls., 5 maps, 5 diags. Same, abstract. Bull., no. 11, p. 137-142, 1 fig. and 3 progress maps. 1889.

Report on the measurement of the Los Angeles base line, Los Angeles and Orange counties, California. By George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diags.

Results of spirit-leveling between tide-water at Annapolis, Md., and the Capitol bench-mark at Washington, D. C., from observations in 1875 by F. W. Perkins. Report by C. A. Schott. Report for 1889, app. 15, p. 461-466.

Report on the resulting length and probable uncertainty of five principal base lines, measured with the compensation base apparatus, Bache-Würdemann, of the Coast Survey, between the years 1847 and 1855, inclusive. By Charles A. Schott. Report for 1889, app. 17, p. 479-491.

Report of George Davidson, appointed by the President of the United States as the delegate to the Ninth Conference of the International Geodetic Association held at Paris, October, 1889. Report for 1889, app. 18, p. 493-503, 1 fig.

Telegraphic determination of the longitude of Mount Hamilton, California. Field work by C. H. Sinclair and R. A. Marr. By Charles A. Schott. Bull., no. 13, p. 147-150. 1889.

Description of two new transit instruments for longitude work. Constructed at the office of the Survey from designs by Edwin Smith. Bull., no. 16, p. 161-164, 1 fig., 1 diag. 1889.

- Determinations of gravity and the magnetic elements in connection with the U. S. scientific expedition to the west coast of Africa, 1889-1890.** By E. D. Preston. Report for 1890, app. 12, p. 625-684, 16 figs., 10 pls., 1 map. [Includes observations on some islands in the North and South Atlantic ocean.]
- Same, abstract.** Bull., no. 22, p. 219-223, 1 map, 7 pls. 1891.
- International Geodetic Association. Ninth Conference.** Paris, October 3-12, 1889. Address of George Davidson, appointed as delegate to the association on the part of the United States. Report for 1890, app. 17, p. 721-733.
- Approximate times of culminations and elongations and the azimuths at elongation of Polaris for the years between 1889 and 1910.** Submitted for publication as a bulletin November 21, 1889, by Charles A. Schott, and first published February 18, 1890. Report for 1891, pt. 2, app. 1, p. 7-13. [Reprinted from Bull., no. 14.]
- On the determination of an azimuth from micrometric observations of a close circumpolar star near elongation by means of a meridian transit, or by means of a theodolite with eyepiece micrometer.** Submitted for publication as a bulletin December 12, 1890, and first published February 26, 1891. Report on method and example of computation by Charles A. Schott. Observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull., no. 21.]
- The transit of Mercury of May 9, 1881, as observed at Waikiki, Hawaiian Islands.** By E. D. Preston. Report for 1891, pt. 2, app. 12, p. 475-477.
- Report of an expedition to Muir Glacier, Alaska, with determinations of latitude and the magnetic elements at Camp Muir, Glacier Bay.** By Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- On the variation of latitude at Rockville, Md., as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association, by C. A. Schott.** Report for 1892, pt. 2, app. 1, p. 1-51, 2 figs., 2 pls., 2 diags.
- Same, abstract.** Bull., no. 25, p. 237-261, 2 diags. 1892.
- On the variation of latitude at Waikiki, near Honolulu, Hawaiian Islands, as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association.** By E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 1 fig., 3 pls., 2 maps, 9 diags.
- On the results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Weir, Isaac Winston, P. A. Welker, and F. A. Young.** By Charles A. Schott. Report for 1892, pt. 2, app. 3, p. 161-203, 1 fig., 1 map.
- On the results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations made in 1890 and 1891 by Isaac Winston and F. A. Young.** By Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224.
- On the measurement of the Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va.** Report for 1892, pt. 2, app. 8, p. 329-503, 2 figs., 2 pls., 2 diags.
- Measure of the irregularity in one turn of the micrometer screw, and the relative value of each turn.** By George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag.
- On the direct synthetical method of adjusting a triangulation.** By Chas. H. Kummell. Report for 1892, pt. 2, app. 12, p. 535-552, 4 figs.
- On the resulting heights from geodetic leveling along the transcontinental line of levels between St. Louis and Jefferson City, Mo., executed in the years 1882 and 1883, by Andrew Braid, Gershom Bradford, and Isaac Winston.** Discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig., 1 diag.
- On photography as applied to obtain an instantaneous record of lunar distances for determinations of longitude.** By C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124.
- On the measurement of base line with steel tapes and with steel and brass wires.** By Edw. Jäderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl., 1 diag.
- Proceedings of the Geodetic Conference, held at Washington, D. C., January 9 to February 28, 1894.** Report for 1893, pt. 2, app. 9, p. 223-424, 4 figs., 7 pls., 1 map, 1 diag.

- The variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson between May, 1891, and August, 1892. Discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diags.**
- Determinations of latitude, gravity, and the magnetic elements at stations in the Hawaiian Islands, including a result for the mean density of the earth. 1891, 1892. By E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 12 figs., 8 pls., 2 maps, 6 diags.**
- Results of observations for the variations of latitude at Waikiki, Hawaiian Islands, in cooperation with the work of the International Geodetic Association. By E. D. Preston. Bull., no. 27, p. 6-20, 2 diags. 1893.**
- The constant of aberration as determined from a discussion of results for latitude at Waikiki, Hawaiian Islands. By E. D. Preston. Bull., no. 28, p. 21-34, 1 diag. 1893.**
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations. By G. R. Putnam; and a report on a geologic examination of some Coast and Geodetic Survey gravity stations. By G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 figs., 1 diag.**
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore. By E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig.**
- Notes on some instruments recently made in the instrument division of the Coast and Geodetic Survey office. By Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pls.**
- Geographic positions of trigonometric points in the State of Massachusetts, determined by the United States Coast and Geodetic Survey between the years 1843 and 1894, and including those determined by the Survey made by Borden in the years 1832 to 1838. (2d enlarged and revised ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 3 maps.**
- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 2, p. 321-332.**
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1889-1895. By C. A. Schott. Report for 1895, app. 3, p. 333-344.**
- Graphic method of reducing stars from mean to apparent places. By E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diags.**
- Description of leveling rods designed and constructed for use in geodetic leveling operations. By Isaac Winston. Report for 1895, app. 8, p. 381, 382, 2 diags.**
- Tables of azimuth and apparent altitude of Polaris at different hour angles. By G. R. Putnam. Report for 1895, app. 10, p. 393-398.**
- The constant of aberration as determined from observations of latitude at San Francisco, Cal. Discussion by E. D. Preston. Observations by George Davidson. Bull., no. 32, p. 109-120. 1895.**
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir between September and November, 1884, and by I. Winston between December, 1891, and February, 1892. By C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map.**
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations made by J. B. Weir in September and October, 1883, and September and October, 1884, with releveing by J. B. Weir between Richmond and Fredericksburg, Va., in May and June, 1886, and verification leveling between the two cities by I. Winston between April and June, 1895. By Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map.**
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations made by J. B. Weir between July and September, 1883. Report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map.**
- Resulting heights from spirit leveling between Jefferson City, Mo., and Holiday, Kans., from observations by I. Winston and F. A. Young between April 21 and October 13, 1891. Report by C. A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig., 1 map.**

- Field method of reducing portable transit time observations.** By G. R. Putnam. Report for 1896, app. 9, p. 347-352.
- Determination of the constant of aberration from latitude observations with the zenith telescope at Honolulu, H. I., and San Francisco, Cal.** By E. D. Preston. Report for 1896, app. 10, p. 353-371, 2 diags.
- The telegraphic longitude net of the United States and its connection with that of Europe, 1866-1896.** By C. A. Schott. Report for 1897, app. 2, p. 197-261. 1 map.
- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by the party under the charge of Fremont Morse.** By Charles A. Schott. Report for 1897, app. 3, p. 263-268.
- Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston between July 11 and October 28, 1895.** By Chas. A. Schott. Report for 1897, app. 4, p. 269-283, 1 fig.
- Results of pendulum observations made in 1895 and 1896.** By G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl., 1 map.
- The duplex base apparatus, and directions for its use in the field.** By William Elmbeck. Report for 1897, app. 11, p. 737-752, 2 figs., 3 pls., 1 diag.
- Report on the measurement of the Salt Lake base line, in Utah.** By William Elmbeck. Report for 1897, app. 12, p. 753-774, 1 fig., 6 pls., 1 map, 2 diags.
- Resulting heights from spirit leveling between Salina and Ellis, Kans., from observations made by I. Winston between July 2 and September 9, 1896.** Report by C. A. Schott. Report for 1898, app. 1, p. 179-193, 1 fig.
- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston between June 11 and November 17, 1897.** Report by C. A. Schott. Report for 1898, app. 2, p. 195-214, 2 figs.
- Resulting heights from spirit leveling between Hugo and Colorado Springs, Colo., from observations by I. Winston between April 20 and July 8, 1898.** Report by C. A. Schott. Report for 1898, app. 3, p. 215-228, 1 fig.
- Inquiry into the relative value and need of a check of the Peruvian arc of 1736-1743.** By C. A. Schott. Report for 1898, app. 4, p. 229-232.
- Physical observations made in connection with the Pribilof Islands survey of 1897.** By G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig., 1 map.
- Report on the proceedings of the International Geodetic Association Conference at Stuttgart, Germany, October 3 to 12, 1898, and on geodetic operations in the United States.** By E. D. Preston, delegate on the part of the United States. Report for 1898, app. 6, p. 243-260, 1 pl., 3 maps.
- The International Geodetic Association for the measurement of the earth.** By Erasmus D. Preston, delegate on the part of the United States at the Twelfth General Conference. Report for 1899, app. 3, p. 241-269, 1 map.
- Determinations of gravity at the Polytechnic Institute, Worcester, Mass., and at Columbia University, New York City, with pendulum apparatus B.** By Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 figs.
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston between May 12 and October 21, 1899.** By Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig.
- Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton between May 8 and October 17, 1899.** By B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig.
- Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson between June 3 and November 28, 1899.** Report by O. W. Ferguson. Report for 1899, app. 7, p. 321-345, 1 fig.
- Precise leveling in the United States.** By John F. Hayford. Report for 1899, app. 8, p. 347-386, 3 figs., 8 pls., 2 maps.
- The oblique boundary line between California and Nevada.** By C. H. Sinclair. Report for 1900, app. 3, p. 255-484, 121 figs., 32 pls., 15 maps.
- The international latitude service at Gaithersburg, Md., and Ukiah, Cal., under the auspices of the International Geodetic Association, by Edwin Smith and F. Schlesinger.** Report for 1900, app. 5, p. 495-520, 1 fig., 2 pls., 2 maps, 2 diags.

- The determination of the mean value of one revolution of a micrometer screw and the progressive and periodic errors of the screw, from observations on a circumpolar star near its elongation. By Edwin Smith. Report for 1900, app. 8, p. 701-712.
- The transcontinental triangulation and the American arc of the parallel. By Chas. A. Schott. Special publication no. 4. 871 pp., 2 figs., 17 pls., 4 maps, 88 diags. 1900.
- Table of coefficients for reducing inclined sights on vertical rod to horizontal distance. 4 pp. 1900.
- Table of factors for computing differences in elevation (in meters). Table of corrections for curvature and refraction (in meters). 4 pp. 1900.
- Table showing the height in meters, corresponding to given angles of elevation and distances in meters. 4 pp. 1900.
- On the measurement of nine base lines along the ninety-eighth meridian. By A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 8, p. 229-302.
- Extension of tables for the computation of geodetic positions to the Equator. By John F. Hayford. Report for 1901, app. 4, p. 303-339.
- Determination of relative value of gravity in Europe and the United States in 1900. By G. R. Putnam. Report for 1901, app. 5, p. 341-355.
- Triangulation northward along the ninety-eighth meridian in Kansas and Nebraska. By John F. Hayford. Report for 1901, app. 6, p. 357-423.
- Triangulation in Kansas. By J. F. Hayford. Report for 1902, app. 3, p. 211-293, 5 sketch maps.
- A bibliography of geodesy. 2d ed. By J. H. Gore. Report for 1902, app. 8, p. 427-787.
- The eastern oblique arc of the United States and osculating spheroid. By Chas. A. Schott. Special publication no. 7. 394 pp., 12 pls., 2 maps, 25 diags. 1902.
- Precise leveling in the United States, 1900-1903, with a readjustment of the level net and resulting elevations. By J. F. Hayford. Report for 1903, app. 3, p. 189-810, 2 views, 14 maps and sketches, 6 diags.
- Triangulation southward along the ninety-eighth meridian in 1902. By J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diags.
- Report on geodetic operations in the United States, 1900-1903, to the Fourteenth General Conference of the International Geodetic Association. By O. H. Tittmann. 28 pp., 1 illus. 1903.
- Telegraphic longitudes. The Pacific arcs from San Francisco to Manila, 1903-4, completing the circuit of the earth. By Edwin Smith. Report for 1904, app. 4, p. 259-311, 13 illus.
- Precise leveling from Red Desert, Wyoming, to Owyhee, Idaho, 1903. By J. F. Hayford. Report for 1904, app. 6, p. 403-430.
- Precise leveling from Holland to New Braunfels, Texas, 1903. By J. F. Hayford. Report for 1904, app. 7, p. 433-450.
- A test of a transit micrometer. By John F. Hayford. Report for 1904, app. 3, p. 453-487, 2 illus.
- Triangulation in California, Part I. By A. L. Baldwin. Report for 1904, app. 9, p. 491-764, 21 illus.
- Precise leveling from Red Desert, Wyoming, to Seattle, Washington, 1903-4. By J. F. Hayford. Report for 1905, app. 4, p. 193-241.
- Triangulation along the ninety-eighth meridian, Lampasas to Seguin, Texas. By J. F. Hayford. Report for 1905, app. 5, p. 243-282, 2 diags.
- The earth movements in the California earthquake of 1906. By J. F. Hayford and A. L. Baldwin. Report for 1907, app. 3, p. 67-104, 2 maps in colors.
- Six primary bases measured with steel and invar tapes. By O. B. French. Report for 1907, app. 4, p. 105-156.
- Precise leveling in the United States, 1903-1907, with a readjustment of the level net and resulting elevations. By J. F. Hayford and L. Pike. 280 pp., 1 map. 1909.

- The figure of the earth and isostasy from measurements in the United States. By J. F. Hayford. 178 pp., 6 maps, 11 diag. 1909.
- Geodetic operations in the United States, 1906-1909. A report to the Sixteenth General Conference of the International Geodetic Association. By O. H. Tittmann and J. F. Hayford. 11 pp. 1909.
- Supplementary investigation in 1909 of the figure of the earth and isostasy. By J. F. Hayford. 80 pp., 5 maps, 1 diag. 1910.
- Primary base lines at Stanton, Texas, and Deming, New Mexico. By William Bowie. Report for 1910, app. 4, p. 143-171, 5 text figs.
- Triangulation in California, Part II. By C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diag.
- Measurement of the flexure of pendulum supports with the interferometer. By W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text figs.
- Formulæ and tables for the computation of geodetic positions. 5th edition, with a preface by C. R. Duvall. Special publication no. 8. 91 pp. 1911.
- The effect of topography and isostatic compensation upon the intensity of gravity. By John F. Hayford and William Bowie. Special publication no. 10. 132 pp., 11 text figs., 9 charts (5 in pocket). 1912.
- Same, Second paper. By William Bowie. Special publication no. 12. 2 pp., and 5 charts (in pocket). 1912.
- Triangulation along the ninety-eighth meridian, Nebraska to Canada, and connection with the Great Lakes. By William Bowie. Report for 1911, app. 4, p. 161-342, 12 text figs.
- Same, Seguin to Point Isabel, Tex. By A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text figs.
- Triangulation along the east coast of Florida, and on the Florida Keys. By Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text figs.
- The Texas-California arc of primary triangulation. Special publication no. 11. By William Bowie. 141 pp., 8 illus., 10 figs. 1912.
- Geodetic operations in the United States, 1909-1912. A report to the Seventeenth General Conference of the International Geodetic Association. By O. H. Tittmann. 18 pp., 3 illus. 1912.
- The California-Washington arc of primary triangulation. Special publication no. 13. 78 pp., 7 maps. 1913.
- Determination of time, longitude, latitude, and azimuth. Special publication no. 14. 77 pp., 29 illus. 1913.

HYDROGRAPHY.

- Abstract of a paper read before the National Academy of Sciences, April 16, 1869, on the earthquake-wave of August 14, 1868. By J. E. Hilgard. Report for 1869, app. 13, p. 233, 234.
- Tidal researches. By William Ferrel. xiii+268 pp., 13 figs. 1874.
- Discussion of tides in New York Harbor. By William Ferrel. Report for 1875, app. 12, p. 194-221.
- Report concerning the location of a quay or pier line in the vicinity of the United States navy-yard at New York. By Henry Mitchell. Report for 1876, app. 11, p. 186-189, sketch 23.
- Description of an optical densimeter for ocean water. By J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig.
- Observations of the density of the waters of Chesapeake Bay and its principal estuaries. Report by Frederick Collins. Report for 1877, app. 14, p. 184-190, 2 figs.
- Physical hydrography of the Gulf of Maine. By Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig., 2 diag.
- Addendum to a report on a physical survey of the Delaware River. By Henry Mitchell. Report for 1879, app. 13, p. 199, 200, 1 diag.
- Comparison of the surveys of Delaware River in front of Philadelphia, 1843 and 1878. By H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diag.
- Report on comparison of surveys of Mississippi River in the vicinity of Cubitt's Gap. By H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag. (44).

- Report on the oyster beds of the James River, Virginia, and of Tangier and Pocomoke sounds, Maryland and Virginia. By Francis Winslow. Report for 1881, app. 11, p. 269-353, 7 pls., 3 maps, 15 diag. (illus. 39-63).
- Report on a new rule for currents in Delaware Bay and River. By Henry Mitchell. Report for 1881, app. 18, p. 464-469, 1 fig.
- Comparison of the survey of Delaware River of 1819, between Pettys and Tinicum islands, with more recent surveys. By Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diag. (sketches 41, 42, and 43).
- Discussion of the tides of the Pacific coast of the United States. By William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diag. (sketches 45, 46, 47).
- Report on the Siemens electrical deep-sea thermometer. By J. R. Bartlett. (Accompanied by a description of the apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 figs., 2 diag. (Nos. 48, 49).
- The estuary of the Delaware. A report by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig., 1 diag. (No. 25). [See also Report for 1887, app. 13.]
- Physical hydrography of Delaware River and Bay. Comparison of recent with former surveys. By H. L. Marindin. Report for 1884, app. 12, p. 431-434, 2 diag. (sketches 22, 23).
- Description of a model of the depths of the sea in the Bay of North America and Gulf of Mexico. By J. E. Hilgard. Report for 1884, app. 17, p. 619-621, 1 map (illus. 25).
- Comparison of transverse sections in the Delaware River, between old navy-yard and east end of Pettys Island, for the years 1819, 1843, and 1878. By Henry L. Marindin. Report for 1885, app. 12, p. 487, 488.
- On the harmonic analysis of the tides at Governors Island, New York Harbor. By William Ferrel. Report for 1885, app. 13, p. 489-493, 1 map (illus. 35).
- Report on deep-sea current work in the Gulf Stream. By J. E. Pillsbury. Report for 1885, app. 14, p. 495-501, 1 pl., 2 maps, 8 diag.
- A report on Monomoy and its shoals. By Henry Mitchell and Charles O. Boutelle. Report for 1886, app. 8, p. 255-261, 2 maps.
- Report of changes in the shore line and beaches of Marthas Vineyard as derived from comparisons of recent with former surveys. By Henry L. Whiting. Report for 1886, app. 9, p. 263-266, 1 map (illus. 21).
- A report on the delta of the Delaware. By Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. (illus. 22).
- A report of Gulf Stream explorations—Observations of currents, 1886. By J. E. Pillsbury. Report for 1886, app. 11, p. 281-290, 6 diag. (plates 23 to 28) presenting curves of observations of currents in the Gulf Stream during 1885 and 1886.
- On the movements of the sands at the eastern entrance to Vineyard Sound. By Henry Mitchell. Report for 1887, app. 6, p. 159-163, 1 map, 1 diag. (illus. 31, 32).
- Gulf Stream explorations—Observations of currents, 1887. By J. E. Pillsbury. Report for 1887, app. 8, p. 173-184, 2 maps, 7 diag. (illus. 34-42).
- Addendum to a report on the estuary of the Delaware. By Henry Mitchell. Report for 1887, app. 13, p. 269-273. [Supplementary to report for 1883, app. 8, p. 239-245.]
- Report on the results of the physical surveys of New York Harbor. By Henry Mitchell. Report for 1887, app. 15, p. 301-311, 1 fig., 6 diag. (illus. 44-49).
- Tide levels and flow of currents in New York Bay and Harbor. By Henry L. Marindin. Report for 1888, app. 9, p. 405-408, 12 maps.
- Same, abstract. Bull., no. 3, p. 7-12, 2 maps. 1888.
- Encroachment of the sea upon the coast of Cape Cod, Massachusetts, as shown by comparative surveys. By Henry L. Marindin. Report for 1889, app. 12, p. 403-407, 1 map.
- Cross-sections of the shore of Cape Cod between Chatham and the Highland light-house. By Henry L. Marindin. Report for 1889, app. 13, p. 409-457, 1 map.

- Recent changes in the south inlet into Edgartown Harbor, Marthas Vineyard. By Henry L. Whiting. Report for 1889, app. 14, p. 459, 460, 1 map.
- Gulf Stream explorations—Observations of currents, 1888 and 1889. By J. E. Pillsbury. Report for 1889, app. 16, p. 467-477, 8 maps, 12 diags.
- Currents of New York Bay and Harbor. Compiled by B. A. Colonna from the notes of a physical survey by H. L. Marindin. Bull., no. 8, p. 41-43. 2d ed. 1889.
- Report on the sounds and estuaries of North Carolina with reference to oyster culture. By Francis Winslow. Bull., no. 10, p. 51-136, 2 maps, 1 diag. 1889.
- A syphon tide-gauge for the open seacoast. By Henry L. Marindin. Bull., no. 12, p. 143-146, 1 diag. 1889.
- On the use of observations of currents for prediction purposes. By John F. Hayford. Report for 1890, app. 14, p. 691-703.
- Comparison of the predicted with the observed times and heights of high and low water at Sandy Hook, New Jersey, during the year 1889. A report by Alex. S. Christie of the results of an investigation made under his direction by John F. Hayford. Report for 1890, app. 15, p. 705-714, 2 diags.
- On the reduction of hydrometer observations of salt-water densities. Submitted for publication, February 18, 1890, by O. H. Tittmann. Revised for republication, February 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277.
- On the changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by a comparison of surveys made between 1835, 1867, and 1890. By Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps.
- Cross-sections of the shore of Cape Cod, Massachusetts, between the Cape Cod and Long Point light-houses. By Henry L. Marindin. Report for 1891, pt. 2, app. 9, p. 289-341.
- On observations of currents with the direction-current meter in the Straits of Florida and in the Gulf of Mexico, 1891. By E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl., 1 map, 7 diags.
- On the sounds and estuaries of Georgia with reference to oyster culture. By J. C. Drake. Bull., no. 19, p. 179-209, 7 maps. 1891.
- Changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor, as shown by a comparison of surveys made between 1867 and 1890. By H. L. Marindin. Bull., no. 24, p. 233-235. 1891.
- On the tides and currents in the harbor of Edgartown and in Katama Bay, Marthas Vineyard. By Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diags.
- On the changes in the ocean shore lines of Nantucket Island, Massachusetts, from a comparison of surveys made in the years 1846 to 1887 and in 1891. By Henry L. Marindin. Report for 1892, pt. 2, app. 6, p. 243-252, 1 map, 8 diags.
- Manual of tides. Part III. Some connections between harmonic and nonharmonic quantities, including applications to the reduction and prediction of tides. By Rollin A. Harris. Report for 1894, pt. 2, app. 7, p. 125-262, 1 fig., 3 diags.
- Report on the changes in the depths on the bar at the entrance to Nantucket inner harbor, Massachusetts, between the years 1888 and 1893. By H. L. Marindin. Report for 1895, app. 5, p. 347-354, 4 diags.
- Notes on the specific gravity of the waters of the Gulf of Mexico and the Gulf Stream. By A. Lindenkohl. Report for 1895, app. 6, p. 355-369, 8 figs., 2 maps.
- Compilation of the most recent information relative to the harbors, anchorages, and dangers to navigation in the vicinity of Chatham and Peril straits and Cooks Inlet, Alaska. Arranged and compiled by Hugh Rodman. Report for 1896, app. 11, p. 373-393.
- Notes relating to self-registering tide gauges as used by the U. S. Coast and Geodetic Survey. By J. F. Pratt. Report for 1897, app. 7, p. 313-318, 2 figs., 8 pls.
- Problems in physiography, concerning salinity and temperature of the Pacific Ocean. By A. Lindenkohl. Report for 1898, app. 9, p. 463-473, 1 fig., 2 diags.

- Alaska.** Hydrographic notes and sailing directions relating to portions of Alaska from Dixon Entrance to Yakutat Bay, including reconnaissance surveys of Cordova Bay, Bucarelli Bay, and Red Fish Bay. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 37, p. 110-118, 3 maps. 1899.
- Alaska.** Hydrographic notes, sailing directions, and charts of surveys relating to the vicinity of Prince William Sound, Cook Inlet, Kodiak Island, and route from Unalaska to Chignik, through Unimak Pass and inside the Islands. 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 38, p. 119-142, 6 maps. 1899.
- Alaska.** Predicted times of slack water at Seymour Narrows, Discovery Passage, British Columbia, and at Sergius Narrows, Peril Strait, Alaska, from May to December, 1899. Prepared from observations by E. K. Moore. Bull. no. 39, p. 143-150. 1899.
- Channel and harbor sweep.** Description by D. B. Wainwright. Report for 1903, app. 6, p. 1005-1010, 1 view.
- Manual of tides.** Part IVb. Cotidal lines for the world. By R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus.
- Long wire sweep.** By D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diags.
- Manual of tides.** Part V. Currents, shallow-water tides, meteorological tides, and miscellaneous matters. By R. A. Harris. Report for 1907, app. 6, p. 231-546. 22 diags. 7 charts.
- Survey of oyster bars, Anne Arundel County, Md.** Description of boundaries and landmarks, and report of work of United States Coast and Geodetic Survey in cooperation with Maryland Shell Fish Commission. By C. C. Yates. 106 pp., 1 map. 1907.
- Survey of oyster bars, Somerset County, Md.** Description of boundaries and landmarks, and report of work of the United States Coast and Geodetic Survey in cooperation with the United States Bureau of Fisheries and the Maryland Shell Fish Commission. By C. C. Yates. 118 pp., map. 1908.
- Same, Wicomico County, Md.** By C. C. Yates. 54 pp., map. 1909.
- Same, Worcester County, Md.** By C. C. Yates. 67 pp., 1 map. 1909.
- Same, Calvert County, Md.** By C. C. Yates. 94 pp., 1 map. 1910.
- Same, Charles County, Md.** By C. C. Yates. 62 pp., 1 map. 1911.
- Same, St. Marys County, Md.** By C. C. Yates. 203 pp., 1 map. 1911.
- Same, Baltimore County, Md.** By C. C. Yates. 42 pp., 1 map. 1911.
- Same, Kent County, Md.** By C. C. Yates. 130 pp., 1 map. 1912.
- Same, Queen Annes County, Md.** By C. C. Yates. 176 pp., 1 map. 1912.
- Same, Dorchester County, Md.** By C. C. Yates. 180 pp., 1 map. 1912.
- Same, Talbot County, Md.** By C. C. Yates. 250 pp., 1 map. 1912.
- Description of long wire drag.** By N. H. Heck. 21 pp., illus. 1910.
- Table of depths for channels and harbors, coasts of the United States, including Porto Rico, the Hawaiian Islands, and the Philippine Islands.** (Replaces Bull. no. 36.) 159 pp. 1910.
- Arctic tides.** By R. A. Harris. 103 pp., 3 charts. 1911.

COAST PILOTS.

These are a series of volumes covering the continental coasts of the United States, Porto Rico, and a portion of Alaska, containing descriptions of the coast and harbors, sailing directions, and general information, etc., for the use of mariners. They are corrected to date of issue as nearly as practicable, and supplements or new editions issued from time to time.

U. S. Coast Pilot: Atlantic coast. Parts I-II. From St. Croix to Cape Ann. 3d ed. 1911. 200 pp., 2 maps. 50 cents.

Same, Part III. From Cape Ann to Point Judith. 3d ed. 1912. 166 pp., 2 maps, 1 illus. 50 cents.

- Same, Part IV. From Point Judith to New York. 5th ed. 1909. 212 pp., 3 maps, 1 illus. 50 cents.
- Same, Part V. From New York to Chesapeake Bay entrance. 4th ed. 186 pp., 4 maps, 1 illus. 1909. 50 cents.
- Same, Part VI. Chesapeake Bay and tributaries. 4th ed. 1913. 162 pp., 2 maps. 50 cents.
- Same, Part VII. From Chesapeake Bay entrance to Key West. 3d ed. 1906. 223 pp., 3 maps, 3 illus. 50 cents.
- Same, Part VIII. Gulf of Mexico from Key West to the Rio Grande. 3d ed. 1908. 177 pp., 4 illus. 50 cents.
- U. S. Coast Pilot: Pacific coast. California, Oregon, and Washington. 2d ed. 1909. 251 pp., 5 maps, 6 illus. 50 cents.
- Same, Alaska. Part I. Dixon entrance to Yakutat Bay, with inland passage from Juan de Fuca Strait to Dixon entrance. 5th ed. 1908. 239 pp., 9 pls., 5 charts. 50 cents.
- U. S. Coast Pilot: West Indies. Porto Rico. 1906. 116 pp., 1 map, 1 chart, 14 illus. 50 cents.
- Alaska. Coast Pilot notes from Yakutat Bay to Cook Inlet and Shellkof Strait. 2d ed. 82 pp. 1910.
- Alaska. Coast Pilot notes on Bering Sea and the Arctic Ocean. 1908. 65 pp. (Replaces Bulletin No. 40.)
- Hawaiian Islands Coast Pilot notes, Feb. 21, 1912. 57 pp. 1912.

INLAND PILOTS.

- Inside route pilot: New York to Key West, 1912. 62 pp., 8 maps. 20 cents.

TIDE TABLES.

These are issued annually and contain predictions for the ports of the United States, including Porto Rico, Alaska, Hawaii, and the Philippine Islands, and also predictions for the principal foreign ports:

- Tide tables for the world. 50 cents.
- Tide tables for the Atlantic coast of the United States, including Canada and the West Indies. (Reprinted from the Tide tables for the world.) 15 cents.
- Tide tables for the Pacific coast of the United States. (Reprinted from the Tide tables for the world.) 10 cents.

CHART CATALOGUES.

These contain lists of the latest coast pilots, tide tables, sailing directions, miscellaneous maps and plans, and charts issued by the Survey:

- Catalogue of charts, coast pilots, and tide tables. 1912. 228 pp., 86 text figs.
- Catalogue of charts, sailing directions, and tide tables of the Philippine Islands. 1910. 54 pp.

SAILING DIRECTIONS FOR THE PHILIPPINE ISLANDS.

These contain descriptions of the coasts and harbors of the Philippine Islands, together with sailing directions for those coasts and harbors:

- Philippine Islands: Sailing directions. Section I. North and west coasts of Luzon and adjacent islands from Cape Engaño to Manila Bay. 4th ed. 1912. 132 pp.
- Philippine Islands: Sailing directions. Section II. Southwest and south coasts of Luzon and adjacent islands, between Manila and San Bernardino Strait. 4th ed. 1910. 102 pp.
- Same, Section III. Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 pp.
- Same, Section IV. Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 pp.

NOTICE TO MARINERS.

These contain corrections that are to be applied to charts in order to keep them up to date. On January 1, 1908, the monthly Notice to Mariners, excepting those pertaining to the Philippine Islands, were, by direction of the Secretary of Commerce, consolidated with and made a part of the weekly Notice to Mariners issued by the Bureau of Lighthouses.

Notice to mariners. Philippine Islands. Issued monthly.

TOPOGRAPHY.

Type forms of topography, Columbia River. By E. Hergeshelmer. Report for 1881, app. 7, p. 124-125, 7 figs., 1 map.

Proceedings of the Topographical Conference held at Washington, D. C., January 18 to March 7, 1892. Report for 1891, pt. 2, app. 16, p. 535-746, 25 figs., 2 pls., 1 map, 5 diag.

Subdivision 1. List of original topographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2209, inclusive. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2222, inclusive. Report for 1895, app. 11, p. 399-516.

A plane table manual. By D. B. Wainwright. Report for 1905, app. 7, p. 289-342, 27 diag., 6 illus.

TERRESTRIAL MAGNETISM.

New discussion of the distribution of the magnetic declination on the coast of the Gulf of Mexico, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^a

New discussion of the distribution of the magnetic declination on the coast of Virginia, North Carolina, South Carolina, and Georgia, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 24, p. 256-259, 1 map.^a

Development of Bessel's function for the effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.

Report on the results from the observations made at the magnetical observatory, on Capitol Hill, Washington, D. C., between 1867 and 1869. By Charles A. Schott. Report for 1869, app. 9, p. 199-207.

On a chart of the magnetic declination in the United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400, 401, 1 map.

On the secular change of magnetic declination in the United States and at some foreign stations. By Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.

An inquiry into the variation of the compass off the Bahama Islands, at the time of the landfall of Columbus in 1492. By Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map (sketch 84).

Terrestrial magnetism. Collection of results for declination, dip, and intensity, from observations made by the United States Coast and Geodetic Survey between 1833 and 1882, July. By Charles A. Schott. Report for 1881, app. 9, p. 159-224.

Account and results of magnetic observations made under the direction of the United States Coast and Geodetic Survey in cooperation with the United States Signal Office, at the United States polar station Ooglaamie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 figs., 1 map (illus. 34).

^a Bound with 16, 17, 18, 19, 20, 21, and 25 of Report for 1861.

- The geographical distribution and secular variation of the magnetic dip and intensity in the United States. By Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diags. (illus. 19-24).
- Collection of some magnetic variations off the coasts of California and Mexico, observed by Spanish navigators in the last quarter of the eighteenth century. Communicated by George Davidson. Report for 1885, app. 7, p. 275-284.
- The magnetic work of the Greely arctic expedition, 1881-1884. Abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210.
- The value of the "Arcano del mare" with reference to our knowledge of the magnetic declination in the earlier part of the seventeenth century. By Charles A. Schott. Bull., no. 5, p. 25-28, 2 maps. 1888.
- Secular variation in the position of the agonic line of the North Atlantic and of America, between the epochs 1500 and 1900 A. D. By Charles A. Schott. Bull., no. 6, p. 29-43, 3 maps. 1888.
- Historical review of the work of the Coast and Geodetic Survey in connection with terrestrial magnetism. By Charles A. Schott. Bull., no. 7, p. 35-40, 4 maps. 1888.
- The distribution of the magnetic declination in the United States for the epoch 1890. (2d ed.) By Charles A. Schott. Report for 1889, app. 11, p. 233-402, 3 maps, 1 diag.
- The magnetic observations made on Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Bull., no. 20, 211-214. 1891. (Reprinted in Report for 1890, pt. 2, app. 5, p. 269-273.)
- Results of the observations made at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part I. Results of the absolute measures of the direction and intensity of the earth's magnetic force. Discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 190-241.
- Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part II. Results of the differential measures of the magnetic declination. Discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diags.
- The secular variation and annual change of the magnetic force at stations occupied by E. D. Preston, in connection with the U. S. eclipse expedition to the west coast of Africa, in 1889-90, in charge of D. P. Todd. Discussion and report by C. A. Schott. Submitted for publication March 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-39.
- Same, abstract. Bull., no. 23, p. 225-232. (1891.)
- Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part III. Results of the differential measures of the horizontal intensity. Discussion and report by Charles A. Schott. Report for 1891, pt. 2, app. 4, p. 41-267, 10 diags.
- On the magnetic observations made during Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Submitted for publication as a bulletin, December 12, 1890, and first published February 26, 1891. Discussion by C. A. Schott. Report for 1891, pt. 2, app. 5, p. 269-273.
- Results of the observations recorded at the U. S. Coast and Geodetic Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, between the years 1882 and 1889. Part IV. Results of the differential measures of the vertical force component, and of the variations of dip and total force. Discussion and report by Charles A. Schott. Report for 1892, pt. 2, app. 7, p. 253-327, 2 diags.
- Results of magnetic observations at stations in Alaska and in the northwest territory of the Dominion of Canada. Observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, in the years 1889, 1890, and 1891. Discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.

- Distribution of the magnetic declination in Alaska and adjacent waters for the year 1896, and construction of an isogonic chart for the same epoch.** By C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.
- Same, abstract.** Bull., no. 34, p. 127-134. (1895.)
- The secular variation in direction and intensity of the earth's magnetic force in the United States and in some adjacent foreign countries.** By Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diags.
- The direction and intensity of the earth's magnetic force at San Francisco, Cal.** By C. A. Schott. Bull., no. 33, p. 121-126. 1895.
- Distribution of the magnetic declination in the United States for the epoch January 1, 1900.** 3d ed. By Charles A. Schott. Report for 1896, app. 1, p. 147-235, 3 illus.
- Distribution of the magnetic dip and the magnetic intensity in the United States for the epoch January 1, 1900.** (2d ed.) By Charles A. Schott. Report for 1897, app. 1, p. 159-196, 3 maps.
- Results of magnetic observations made in connection with the Greenland expedition of 1896, under charge of A. E. Burton.** By G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag.
- California, Bay of San Francisco. Magnetic ranges for determining the deviation of the compass, with short explanations of how to find the deviation and error of the compass.** Arranged and compiled by J. C. Gilmore. Special publication no. 1. 7 pp., 5 pls., 1 map. 1898.
- General report upon the magnetic survey of North Carolina, with a brief historical sketch of the fundamental phenomena of the earth's magnetism.** By James B. Baylor and Daniel L. Hazard, under the direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pls., 2 maps.
- The magnetic work of the United States Coast and Geodetic Survey.** By L. A. Bauer. Report for 1899, app. 10, p. 939-952.
- Magnetic survey of North Carolina. Values of the magnetic declination at the county seats from 1750 to 1910.** By D. L. Hazard. Bull., no. 41, p. 1-12. 1901.
- The magnetic observatories of the United States Coast and Geodetic Survey in operation on July 1, 1902.** By L. A. Bauer and J. A. Fleming. Report for 1902, app. 5, p. 301-331, 8 views, 3 maps and sketches, 5 diags.
- Magnetic dip and intensity observations, January, 1897, to June 30, 1902.** By D. L. Hazard. With preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1902, and June 30, 1903.** By L. A. Bauer. Report for 1903, app. 5, p. 931-1004.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1903, and June 30, 1904.** By L. A. Bauer. Report for 1904, app. 3, p. 207-255, 2 illus.
- Same between July 1, 1904, and June 30, 1905.** By L. A. Bauer. Report for 1905, app. 3, p. 105-192.
- Same between July 1, 1905, and June 30, 1906.** By L. A. Bauer. Report for 1906, app. 3, p. 105-210, 1 illus.
- Distribution of the magnetic declination in the United States for January 1, 1905.** By L. A. Bauer. Report for 1906, app. 4, p. 211-223, 1 map.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1906, and June 30, 1907.** By R. L. Faris. Report for 1907, app. 5, p. 157-230.
- Same between July 1, 1907, and June 30, 1908.** By R. L. Faris. Report for 1908, app. 3, p. 69-165.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Cheltenham, Md., 1901-1904.** By D. L. Hazard. 206 pp., 56 illus. 1909.
- Same, 1905 and 1906.** By D. L. Hazard. 110 pp., 29 figs. 1910.
- Same, 1907 and 1908.** By D. L. Hazard. 93 pp., 14 figs. 1911.
- Same, 1909 and 1910.** By D. L. Hazard. 93 pp., 22 figs. 1912.

- Results of observations made at the Coast and Geodetic Survey magnetic observatory near Honolulu, Hawaii, 1902-1904.** By D. L. Hazard. 180 pp., 1 map, 5 illus., 47 figs. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 112 pp., 32 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 95 pp., 11 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 95 pp., 21 figs. 1912.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Vieques, P. R., 1903-4.** By D. L. Hazard. 70 pp., 1 illus., 1 fig. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 110 pp., 26 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 98 pp., 21 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 94 pp., 19 figs. 1912.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Sitka, Alaska, 1902-1904.** By D. L. Hazard. 129 pp., 1 map, 2 illus., 49 figs. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 115 pp., 36 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 94 pp., 23 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 96 pp., 21 figs. 1912.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Baldwin, Kans., 1901-1904.** By D. L. Hazard. 133 pp. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 107 pp., 26 figs. 1910.
- Same, 1907-1909. By D. L. Hazard. 114 pp., 30 figs. 1911.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1908, and June 30, 1909.** By R. L. Faris. Report for 1909, app. 3, p. 75-149.
- Same, between July 1, 1909, and June 30, 1910. By R. L. Faris. Report for 1910, app. 3, p. 73-141.
- Distribution of the magnetic declination in Alaska and adjacent regions for 1910.** By R. L. Faris. Report for 1909, app. 4, p. 151-179, 4 figs., 4 text figs., 1 map in pocket.
- Principal facts of the earth's magnetism, and methods of determining the true meridian and the magnetic declination.** (Reprinted from United States magnetic declination tables for 1902.) 99 pp., 1 map, 9 illus., 18 figs. 1909.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory near Tucson, Ariz., 1909 and 1910.** By D. L. Hazard. 59 pp., 2 illus., 9 figs. 1913.
- Directions for magnetic measurements.** By D. L. Hazard. 131 pp., 10 text figs. 1911.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1910, and June 30, 1911.** By R. L. Faris. Report for 1911, app. 3, p. 77-153.
- Distribution of the magnetic declination in the United States for January 1, 1910, with isogonic chart and secular change tables.** By R. L. Faris. Special publication no. 9. 14 pp., 1 map. 1911.
- Results of magnetic observations made by the United States Coast and Geodetic Survey between July 1, 1911, and Dec. 31, 1912.** Special publication no. 15. (In press.)

CHART CONSTRUCTION.

- A quincuncial projection of the sphere.** By C. S. Peirce. Report for 1877, app. 15, p. 191, 192, 1 map.
- Notes on an original manuscript chart of Bering's expedition of 1725-1730, and on an original manuscript chart of his second expedition; together with a summary of a journal of the first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version.** By William Healey Dall. Report for 1890, app. 19, p. 759-774, 2 maps.
- Notes on an early chart of Long Island Sound and its approaches.** By Charles Hervey Townshend. Report for 1890, app. 20, p. 775-777, 1 map.
- Tables for a polyconic projection of maps, based upon Clarke's reference spheroid of 1866.** 3d ed. [Replaces app. 6, Report for 1884 and Special publication no. 5.] 189 pp., 1 chart. 1910.

Notes relative to the use of charts issued by the United States Coast and Geodetic Survey. By D. B. Wainwright. Special publication no. 6. 23 pp., 1 fig., 1 pl., 6 diag. 1900.

ALLIED SUBJECTS.

Report on the Nicaragua route for an interoceanic ship-canal, with a review of other proposed routes; made by Maximilian Von Sonnenstern to the minister of public works of Nicaragua. Translated for the U. S. Coast Survey. 22 pp., 1 map. 1874.

Hypsometric formula based upon thermodynamic principles. By Chas. A. Schott. Report for 1876, app. 19, p. 388-390.^a

A statement concerning the relation of the lawful standards of measure of the United States to those of Great Britain and France. By J. E. Hilgard. Report for 1876, app. 22, p. 402-406.

Report on the blue clay of the Mississippi River. By George Little. Report for 1880, app. 12, p. 145-171, sketch 48.

On the length of a nautical mile. By J. E. Hilgard. Report for 1881, app. 12, p. 354, 356.

General properties of the equations of steady motion. By Thos. Craig. 26 pp. 1881.

Historical sketch of the U. S. Coast and Geodetic Survey. 8 pp. 1884.

A plea for light on St. George's bank. By Henry Mitchell. Report for 1885, app. 11, p. 483-485.

An examination of some of the early voyages of discovery and exploration on the Northwest coast of America from 1539 to 1603. By George Davidson. Report for 1886, app. 7, p. 155-253, 1 map (illus. 18).

Resources of and developments in Alaska. By George Davidson. Bull., no. 4, p. 13-24. 1888.

Verification of weights and measures. By O. H. Tittman. Bull., no. 15, p. 157, 158, 1 diag. 1889.

The relation between the metric standards of length of the U. S. Coast and Geodetic Survey and the U. S. Lake Survey. By C. A. Schott and O. H. Tittmann. Bull., no. 17, p. 165-173. 1889.

Report in relation to a portion of boundary line in dispute between the States of Maryland and Virginia. By Henry L. Whiting. Report for 1890, app. 11, p. 621-623.

On an approximate method for computing probable error. By Chas. H. Kummell. Report for 1890, app. 13, p. 685-687.

The determination, by the method of least squares, of the relation between two variables, connected by the equation $Y=AX+B$, both variables being liable to errors of observation. By Mansfield Merriman, Ph. D. Report for 1890, app. 13, p. 687-690.

On the relation of the yard to the meter. By O. H. Tittmann. Report for 1890, app. 16, p. 715-720. [This paper is a second edition of Bulletin 9, revised by the author, with statement of later comparisons, confirming his results.]

State laws authorizing officers of the U. S. Coast and Geodetic Survey to enter upon lands within State limits for the purposes of the Survey. Report for 1893, app. 1, p. 1-18.

Units of electrical measure. Report for 1893, pt. 2, app. 7, p. 173-176.

Part I. A historical account of the boundary line between the States of Pennsylvania and Delaware. Part II. Detailed account of work on the Pennsylvania and Delaware boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig., 3 maps, 2 facsimiles.

On the preparation and arrangement of the exhibit of the U. S. Coast and Geodetic Survey at the World's Columbian Exposition. By D. B. Wainwright. Report for 1893, app. 10, p. 425-439.

Units of electrical measure. Approved for publication December 27, 1893. Bull., no. 30, p. 99-104. 1894.

Legal units of electrical measure in the United States. Approved August 12, 1894. Bull., no. 31, p. 105-108. 1894.

General statement of the administration and work of the Coast and Geodetic Survey, with historical sketch from 1807 to 1898. Extract from report of Superintendent for the fiscal year 1897-98. By H. S. Pritchett. p. 21-28, 1 sketch. 1899.

Methods and results of the U. S. Coast and Geodetic Survey. [Leaflets printed for distribution at the Pan-American Exposition, Buffalo, N. Y.] Spanish edition. Issued separately. 1901.

Table for converting customary and metric weights and measures. 4 pp. 1900.

List and catalogue of the publications issued by the U. S. Coast and Geodetic Survey, 1816-1902. Reprint, with Supplement, 1903-1908. By E. L. Burchard and R. M. Brown. 237, 44 pp. 1908.

Same. Supplement to August, 1908, inclusive. 1908.

General instructions for the field work of the Coast and Geodetic Survey. 127 pp. 1908.

Coast and Geodetic Survey in Alaska. 8 pp. 1909.

The work of the Coast and Geodetic Survey. 2d ed. 47 pp., 5 illus., 1 diag. 1909.

BUREAU OF CORPORATIONS.

Annual Report of the Commissioner of Corporations for 1912. 24 pp. 1913. [There are also on hand a limited supply of each of the annual reports of the Commissioner from 1904-1906 and 1908-1911, inclusive.]

Report of the Commissioner of Corporations on the beef industry. Mar. 3, 1905. xxxvi+315 pp., 15 diags. 1905.

Report of the Commissioner of Corporations on the transportation of petroleum. May 2, 1906. xxvii+512 pp., 40 maps and diags. 1906.

Statement of the Commissioner of Corporations in answer to the allegations of the Standard Oil Company concerning its conviction at Chicago for accepting concessions on shipments over the Chicago and Alton Railroad. A discussion of the allegations in the pamphlet entitled "From the directors of the Standard Oil Company to its employees and stockholders," Dec. 30, 1907. 11 pp. 1907.

Report of the Commissioner of Corporations on the petroleum industry. Part II. Prices and profits. Aug. 5, 1907. xiv+965 pp., 3 maps, 71 diags. 1907.

Report of the Commissioner of Corporations on cotton exchanges. Part I. Methods of establishing grade differences for future contracts. May 4, 1908. xxi+369 pp., 11 charts. 1908. [Also Summary.]

Same, Part II. Classification of cotton. Part III. Range of grades deliverable on contract. May 29, 1908. xvi+217 pp., 1 illus. 1908. [Also Summary.]

Same, Part IV. Effect of future contracts on prices of cotton. Part V. Influence of producers' organizations on prices of cotton. Dec. 6, 1909. xxii+370 pp., 24 charts and diags. 1909. [Also Summary.]

Report of the Commissioner of Corporations on the tobacco industry. Part I. Position of the tobacco combination in the industry. Feb. 25, 1909. xxiii+489 pp. 1909.

Same, Part II. Capitalization, investment, and earnings. Sept. 25, 1911. xxi+343 pp. 1911.

Taxation of corporations. Part I. New England. Report on the system of taxing manufacturing, mercantile, transportation, and transmission corporations in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. May 17, 1909. xlii+156 pp. 1909.

Same, Part II. Middle Atlantic States [New York, New Jersey, Pennsylvania, Delaware, Maryland, and in the District of Columbia]. June 6, 1910. xlii+115 pp. 1910.

Same, Part III. Eastern Central States [Ohio, Indiana, Illinois, Michigan, and Wisconsin.] July 31, 1911. x+109 pp. 1911.

Same, Part IV. Western Central States [Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Kansas, and Missouri.] Nov. 29, 1912. xlii+144 pp. 1912.

- Report of the Commissioner of Corporations on transportation by water in the United States. Part I. General conditions of transportation by water. July 12, 1909. xviii+614 pp., 1 map. 1909.
- Same, Part II. Water-borne traffic. July 19, 1909. xxiv+402 pp., 5 maps. 1909.
- Same, Part III. Water terminals. Sept. 26, 1910. xxi+436 pp., 18 charts and diags. 1910.
- Same, Part IV. Control of water carriers by railroads and by shipping consolidations. Dec. 23, 1912. xvii+101 pp., 4 maps. 1913.
- Report of the Commissioner of Corporations on the steel industry. Part I. Organization, investment, profits, and position of United States Steel Corporation. July 1, 1911. xxiv+422 pp. 1911. [Also Summary.]
- Same, Part II. Cost of production—Preliminary report. Jan. 22, 1912. xviii+144 pp. 1912.
- Report of the Commissioner of Corporations on water-power development in the United States. Part I. Physical conditions and economic aspects of water power. Part II. Concentration of ownership and control. Part III. Water power and the public. Mar. 14, 1912. xx+220 pp., 16 maps and charts. 1912.
- Report of the Commissioner of Corporations on cotton tare. Sept. 3, 1912. x+53 pp. 1912.
- Report of the Commissioner of Corporations on the International Harvester Co. Mar. 3, 1913. xxiii+384 pp. 1913.

BUREAU OF FISHERIES.

The publications of the Bureau of Fisheries are now issued under a plan somewhat different from that formerly followed.

Bound volumes are no longer distributed. The Annual Report now consists of only a brief administrative report of the Commissioner, in pamphlet form. The papers formerly published as appendices to the report of the Commissioner, with it constituting the Annual Report volume, are now issued as small documents independent of any other publication. The papers composing the Bulletin, while still forming an annual volume with continuous pagination, are to be had only as separates, for which, however, there will be issued a general title-page, table of contents, and index at the end of each year.

In the following pages are listed, by serial numbers, all of the pamphlets now available.

Doc. No.

142. Notes on the fishes from the lowlands of Georgia, with a description of a new species (*Opsopoeodus bollmani*). By Charles H. Gilbert. Bulletin, vol. viii, 1888, p. 225-229. 1891.
269. Recent experiments in sturgeon hatching on the Delaware River. By Bashford Dean. Bulletin, vol. xiii, 1893, p. 335-339, 1 text fig. 1894.
303. The fishes of the Neuse River Basin. By Barton W. Evermann and Ulysses O. Cox. Bulletin, vol. xv, 1895, p. 303-310. 1896.
312. Report upon ichthyological investigations in western Minnesota and eastern North Dakota. By Albert J. Woolman. Report for 1893, p. 343-373, pl. 19. 1896.
322. Description of a closing tow net for submarine use at all depths. By C. H. Townsend. Report for 1894, p. 279-282, pl. 9, 10. 1896.
323. The whitefishes of North America. By Barton W. Evermann and Hugh M. Smith. Report for 1894, p. 283-324, 1 text fig., pl. 11-28. 1896.
328. A report upon the fishes of southwestern Minnesota. By Ulysses O. Cox. Report for 1894, p. 605-616. 1896.
333. Notes on Biscayne Bay, Florida, with reference to its adaptability as the site of a marine hatching and experiment station. By Hugh M. Smith. Report for 1895, p. 169-191. 1896.

Doc. No.

338. Report of the representatives of the U. S. Fish Commission at the Cotton States and International Exposition at Atlanta, Ga., in 1895. By W. de C. Ravenel. Report for 1896, p. 147-167, 3 text fig., pl. 11-21. 1897.
339. Notes on the extension of the recorded range of certain fishes of the United States coast. By Hugh M. Smith and William C. Kendall. Report for 1896, p. 169-176. 1897.
340. Notes on the food of four species of the cod family. By William C. Kendall. Report for 1896, p. 177-186. 1897.
343. Report of a survey of the oyster regions of St. Vincent Sound, Apalachicola Bay, and St. George Sound, Florida. By Franklin Swift. Report for 1896, p. 187-221, pl. 21. 1897.
346. Artificial propagation of the Atlantic salmon, rainbow trout, and brook trout. Manual of Fish Culture, p. 17-90, 14 text fig., pl. 11-29. 1900.
347. Artificial propagation of the black bass, crappies, and rock bass. Manual of Fish Culture, p. 147-163, 2 text fig., pl. 47-50. 1900.
349. Oysters and methods of oyster culture, with notes on clam culture. By H. F. Moore. Manual of Fish Culture, p. 263-340, 6 text fig., pl. i-xviii. 1900.
355. Report of observations made on board the U. S. Fish Commission steamer *Albatross* during the year ending June 30, 1896. Report for 1896, p. 357-386. 1897.
356. Observations upon the herring and herring fisheries of the northeast coast, with special reference to the vicinity of Passamaquoddy Bay. By H. F. Moore. Report for 1896, p. 387-442, pl. 60-62. 1897.
359. Notes on the halibut fishery of the northwest coast in 1896. By A. B. Alexander. Bulletin, vol. xvii, 1897, p. 141-144. 1898.
367. The utility of a biological station on the Florida coast in its relations to the commercial fisheries. By S. E. Meek. Bulletin, vol. xvii, 1897, p. 181-183. 1898.
376. The Hudson River as a salmon stream. By A. Nelson Cheney. Bulletin, vol. xvii, 1897, p. 247-251. 1898.
379. The restricted inland range of shad due to artificial obstructions, and its effect upon natural reproduction. By Charles H. Stevenson. Bulletin, vol. xvii, 1897, p. 265-271. 1898.
393. Possibilities for an increased development of Florida's fishery resources. By John N. Cobb. Bulletin, vol. xvii, 1897, p. 349-351. 1898.
399. Report on mackerel investigations in 1897. By J. Percy Moore. Report for 1898, p. 1-22. 1899.
400. Reports on fishes obtained by the steamer *Albatross* in the vicinity of Santa Catalina Island and Monterey Bay. By Charles H. Gilbert. Report for 1898, p. 23-29, pl. 1 and 2. 1899.
401. Notes on the extent and condition of the alewife fisheries of the United States in 1896. By Hugh M. Smith. Report for 1898, p. 31-43. 1899.
403. The shad fisheries of the Atlantic coast of the United States. By Charles H. Stevenson. Report for 1898, p. 101-269. 1899.
404. List of fishes collected at the Revillagigedo Archipelago and neighboring islands. By David Starr Jordan and Richard Crittenden McGregor. Report for 1898, p. 273-284, pl. 4-7. 1899.
405. Report on investigations by the U. S. Fish Commission in Mississippi, Louisiana, and Texas in 1897. By Barton W. Evermann. Report for 1898, p. 285-310, pl. 8-36. 1899.
407. Report upon exhibit of the U. S. Fish Commission at the Tennessee Centennial Exposition in 1897. By W. de C. Ravenel. Report for 1898, p. 329-339, pl. 37. 1899.
409. List of fishes known to inhabit the waters of the District of Columbia and vicinity. By Hugh M. Smith and Barton A. Bean. Bulletin, vol. xviii, 1898, p. 179-187. 1899.
410. Notes on a collection of tide-pool fishes from Kadiak Island in Alaska. By Cloudsley Rutter. Bulletin, vol. xviii, 1898, p. 189-192. 1899.
411. The southern spring mackerel fishery of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 193-271. 1899.
412. Notice of a filefish new to the fauna of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 273-278, pl. 64. 1899.

Doc. No.

415. The peripheral nervous system of the bony fishes. By C. Judson Herrick. Bulletin, vol. xviii, 1898, p. 315-320, 1 text fig. 1899.
416. The reappearance of the tilefish. By Hermon C. Bumpus. Bulletin, vol. xviii, 1898, p. 321-333. 1899.
422. An inquiry into the feasibility of introducing useful marine animals into the waters of Great Salt Lake. By H. F. Moore. Report for 1899, p. 229-250, pl. 7. 1899.
423. A review of the fisheries in the contiguous waters of the State of Washington and British Columbia. By Richard Rathbun. Report for 1889, p. 251-350, pl. 8-16. 1899.
425. Notes on the tide-pool fishes of California, with a description of four new species. By Arthur White Greeley. Bulletin, vol. xix, 1899, p. 7-20, 5 text fig. 1899.
426. The synaptas of the New England coast. By Hubert Lyman Clark. Bulletin, vol. xix, 1899, p. 21-31, pl. 10 and 11. 1899.
427. Descriptions of new genera and species of fishes from Porto Rico. By Barton Warren Evermann and Millard Caleb Marsh. Report for 1899, p. 351-362. 1899.
428. Descriptions of two new species of darters from Lake Maxinkuckee, Indiana. By Barton Warren Evermann. Report for 1899, p. 363-367. 1900.
429. The sturgeon fishery of Delaware River and Bay. By John N. Cobb. Report for 1899, p. 369-380, 2 text fig., pl. 18-21. 1900.
433. Descriptions of new species of fishes from the Hawaiian Islands belonging to the families of Labridæ and Scaridæ. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 45-65, 22 text fig. 1900.
436. Notes on a collection of fishes from the rivers of Mexico, with description of 20 new species. By David Starr Jordan and John O. Snyder. Bulletin, vol. xix, 1899, p. 115-147, 22 text fig. 1900.
438. Some chemical changes in the developing fish egg. By P. A. Levene. Bulletin, vol. xix, 1899, p. 153-155. 1900.
439. The free-swimming copepods of the Woods Hole region. By William Morton Wheeler. Bulletin, vol. xix, 1899, p. 157-192, 30 text fig. 1900.
442. On the movements of certain lobsters liberated at Woods Hole. By Hermon C. Bumpus. Bulletin, vol. xix, 1899, p. 225-230, pl. 27. 1900.
444. Report of a dredging expedition off the southern coast of New England, September, 1899. By Freeland Howe, jr. Bulletin, vol. xix, 1899, p. 237-240, 1900.
446. Fish parasites collected at Woods Hole in 1898. By Edwin Linton. Bulletin, vol. xix, 1899, p. 267-304, pl. 33-43. 1900.
447. Biological notes, No. 1. Bulletin, vol. xix, 1899, p. 305-310. 1900.
448. The skeleton of the black bass. By R. W. Shufeldt. Bulletin, vol. xix, 1899, p. 311-320, 8 text fig., pl. 44. 1900.
449. The chemical composition of the subdermal connective tissue of the ocean sunfish. By Erik H. Green. Bulletin, vol. xix, 1899, p. 321-324. 1900.
452. A method of recording egg development, for use of fish-culturists. By Claudius Wallich. Report for 1900, p. 185-194, pl. 1. 1900.
455. The hydroids of the Woods Hole region. By C. C. Nutting. Bulletin, vol. xix, 1899, p. 325-386, 105 text fig. 1901.
456. Description of 15 new species of fishes from the Hawaiian Islands. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 387-404, 16 text fig. 1901.
457. Parasites of fishes of the Woods Hole region. By Edwin Linton. Bulletin, vol. xix, 1899, p. 405-492, pl. i-xxxiv. 1901.
458. The Mollusca of Porto Rico. By W. H. Dall and C. T. Simpson. Bulletin, vol. xx, 1900, pt. 1, p. 351-524, pl. 53-58. 1901.
459. The Brachyura and Macrura of Porto Rico. By Mary J. Rathbun. Bulletin, vol. xx, 1900, pt. 2, p. 1-127 + *129-137, 26 text fig., pl. 1 and 2. 1901.
460. The Anomuran collections made by the *Fish Hawk* expedition to Porto Rico. By J. E. Benedict. Bulletin, vol. xx, 1900, pt. 2, p. 129-148, pl. 3-6. 1901.
461. The Stomatopoda of Porto Rico. By R. P. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 149-160, 13 text fig. 1901.

Doc. No.

462. Report on Porto Rican Isopoda. By H. F. Moore. Bulletin, vol. xx, 1900, pt. 2, p. 161-176, pl. 7-11. 1901.
463. The Cirripedia collected near Porto Rico by the *Fish Hawk* expedition in 1898-99. By M. A. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 177-180. 1901.
464. The polychætaous annelids of Porto Rico. By A. L. Treadwell. Bulletin, vol. xx, 1900, pt. 2, p. 181-210, 78 text fig. 1901.
465. Descriptions of two new leeches from Porto Rico. By J. Percy Moore. Bulletin, vol. xx, 1900, pt. 2, p. 211-222, pl. 12-13. 1901.
466. The nemerteans of Porto Rico. By Wesley R. Coe. Bulletin, vol. xx, 1900, pt. 2, p. 223-229. 1901.
467. The echinoderms of Porto Rico. By H. L. Clark. Bulletin, vol. xx, 1900, pt. 2, p. 231-263, pl. 14-17. 1901.
468. The Alcyonaria of Porto Rico. By C. W. Hargitt and C. G. Rogers. Bulletin, vol. xx, 1900, pt. 2, p. 265-287, pl. i-iv. 1901.
470. Actinaria from the vicinity of Porto Rico. By J. E. Duerden. Bulletin, vol. xx, 1900, pt. 2, p. 321-374, pl. A and i-xii. 1901.
471. The sponges collected in Porto Rico in 1899 by the U. S. Fish Commission steamer *Fish Hawk*. By H. V. Wilson. Bulletin, vol. xx, 1900, pt. 2, p. 375-411. 1901.
472. Dredging and other records of the U. S. Fish Commission steamer *Albatross*, with bibliography relative to the work of the vessel. Compiled by C. H. Townsend. Report for 1900, p. 387-562, pl. i-vii. 1901.
474. Biological notes, No. 2, from biological laboratory at Woods Hole. Bulletin, vol. xxi, 1901, p. 27-33. 1901.
475. Description of a new oceanic fish found off southern New England. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 35-36, 1 text fig. 1901.
476. The egg and development of the conger eel. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 37-44, 15 text fig. 1901.
477. Investigations into the history of the young squeteague. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 45-51, 2 text fig. 1901.
478. A new isopod parasitic on the hermit crab. By Millett T. Thompson. Bulletin, vol. xxi, 1901, p. 53-56, pl. 9-10. 1901.
479. The plants of western Lake Erie, with observations on their distribution. By A. J. Pieters. Bulletin, vol. xxi, 1901, p. 57-79, 11 text fig., pl. 11-20. 1901.
480. The leptocephalus of the American eel and other American leptocephali. By C. H. Eigenmann and C. H. Kennedy. Bulletin, vol. xxi, 1901, p. 81-92, 14 text fig. 1901.
483. Notes on the fishes and mollusks of Lake Chautauqua, New York. By B. W. Evermann and E. L. Goldsborough. Report for 1901, p. 169-175. 1902.
484. The foraminifera of Porto Rico. By James M. Flint. Bulletin, vol. xx, pt. 2, 1900, p. 415-416. 1901.
485. Description of a new species of blenny from Japan. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 93-94, 1 text fig. 1902.
486. List of species of fishes known to occur in the Great Lakes or their connecting waters. By Barton Warren Evermann. Bulletin, vol. xxi, 1901, p. 95-96. 1902.
491. Notes on the tagging of four thousand adult cod at Woods Hole, Mass. By Hugh M. Smith. Report for 1901, p. 193-208. 1902.
492. Notes on the silversides of the genus *Menidia* of the east coast of the United States, with descriptions of two new subspecies. By W. C. Kendall. Report for 1901, p. 241-267, 6 text fig. 1902.
493. Note on the Scotch methods of smoking haddocks. By Hugh M. Smith. Report for 1901, p. 269-271. 1902.
494. Notes on the fishes of Lake Ontario. An annotated list of the fishes known to occur in Lake Champlain and its tributary waters. An annotated list of the fishes known to occur in the St. Lawrence River. By B. W. Evermann and W. C. Kendall. Report for 1901, p. 209-240. 1902.
495. A report on fishes collected in Mexico and Central America, with notes and descriptions of five new species. By B. W. Evermann and E. L. Goldsborough. Bulletin, vol. xxi, 1901, p. 137-159, 8 text fig. 1902.

Doc. No.

496. The organic constituents of the scales of fish. By E. H. Green and R. W. Tower. Bulletin, vol. xxi, 1901, p. 97-102. 1902.
497. The reactions of copepods to various stimuli and the bearing of this on daily depth migrations. By G. H. Parker. Bulletin, vol. xxi, 1901, p. 103-123. 1902.
498. The gas in the swim-bladder of fishes. Biliary calculi in the squeteague. By R. W. Tower. Bulletin, vol. xxi, 1901, p. 125-135, pl. xxi. 1902.
499. Description of a new species of shad (*Alosa ohlensis*), with notes on other food-fishes of the Ohio River. By Barton Warren Evermann. Report for 1901, p. 273-288. 1902.
500. The reproductive period in the lobster. By Francis H. Herrick. Bulletin, vol. xxi, 1901, p. 161-166, 5 text fig. 1902.
501. Notes on five food-fishes of Lake Buhl. Luzon, Philippine Islands. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 167-171, pl. 22. 1902.
502. Marine protozoa from Woods Hole. By Gary N. Calkins. Bulletin, vol. xxi, 1901, p. 413-468, 69 text fig. 1902.
503. Notes on a species of barnacle (*Dichelaspis*) parasitic on the gills of edible crabs. By Robert E. Coker. Bulletin, vol. xxi, 1901, p. 399-412, 14 text fig. 1902.
507. Statistics of the fisheries of the Mississippi River and tributaries [for 1899]. Report for 1901, p. 659-740. 1902.
508. The Pan-American Exposition. Report of representative of the U. S. Fish Commission. By W. de C. Ravenel. Report for 1901, p. 289-351, pl. 6-20. 1902.
509. Notes on the boats, apparatus, and fishing methods employed by the natives of the South Sea Islands, and the results of fishing trials by the *Albatross*. By A. B. Alexander. Report for 1901, p. 741-829, 36 text fig., pl. 30-37. 1902.
511. Observations on the herring fisheries of England, Scotland, and Holland. By Hugh M. Smith. Bulletin, vol. xxii, 1902, p. 1-16, 1 text fig., pl. 1-2. 1903.
514. Hearing and allied senses in fishes. By G. H. Parker. Bulletin, vol. xxii, 1902, p. 45-64, pl. 9. 1903.
516. Notes on fishes from streams and lakes of northeastern California not tributary to the Sacramento Basin. By Cloudsley Rutter. Bulletin, vol. xxii, 1902, p. 145-148, 2 text fig. 1903.
518. The destruction of trout fry by hydra. By A. E. Beardsley. Bulletin, vol. xxii, p. 157-160. 1903.
519. Artificial propagation of the salmon of the Pacific coast. Manual of Fish Culture, p. 1-15, pl. 3-10. 1900.
520. Artificial propagation of the lake trout, grayling, and whitefish. Manual of Fish Culture, p. 91-120, pl. 30-39. 1900.
521. Artificial propagation of the shad and pike perch. Manual of Fish Culture, p. 121-145 and 165-179, 5 text fig., pl. 40-46 and 51-52. 1900.
522. Artificial propagation of marine species of fishes. Manual of Fish Culture, p. 195-238, pl. 54-63. 1904.
523. Descriptions of new genera and species of fishes from the Hawaiian Islands. By D. S. Jordan and B. W. Evermann. Bulletin, vol. xxii, 1902, p. 161-208. 1903.
526. The freshwater fishes of western Cuba. By Carl H. Eigenmann. Bulletin, vol. xxii, 1902, p. 211-236, 17 text fig., pl. 19-21. 1903.
529. The plankton algae of Lake Erie, with special reference to the Chlorophyceæ. By Julia W. Snow. Bulletin, vol. xxii, 1902, p. 369-394, pl. i-iv. 1903.
530. Description of a new species of darter from Tippecanoe Lake. By William J. Moenkhaus. Bulletin, vol. xxii, 1902, p. 395-398. 1903.
531. Notes on some freshwater fishes from Maine. By W. C. Kendall. Bulletin; vol. xxii, 1902, p. 353-368, 5 text fig. 1903.
533. A more complete description of *Bacterium truttae*. By M. C. Marsh. Bulletin; vol. xxii, 1902, p. 411-416, pl. i-ii. 1903.

Doc. No.

534. Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. By Oliver P. Jenkins. Bulletin, vol. xxii, 1902, p. 417-511, 50 text fig., pl. i-iv. 1903.
539. The fisheries and fish trade of Porto Rico. By W. A. Wilcox. Report for 1902, p. 367-395. 1903.
541. Records of dredging and other collecting stations of the U. S. Fish Commission steamer *Albatross* in 1901 and 1902. Report for 1902, p. 397-432. 1903.
542. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer *Albatross*. By Harriet Richardson. Bulletin, vol. xxiii, 1903, pt. iii, p. 47-54. 1903.
544. Notes on a porpoise of the genus *Prodelphinus* from the Hawaiian Islands. By Frederick W. True. Bulletin, vol. xxiii, 1903, pt. 3, p. 41-45, pl. 1-2. 1903.
546. A catalogue of the shore fishes collected by the steamer *Albatross* about the Hawaiian Islands in 1902. By John Otterbein Snyder. Bulletin, vol. xxii, 1902, p. 513-538, 52 text fig., pl. 1-13. 1904.
547. Notes on fishes collected in the Tortugas Archipelago. By David Starr Jordan. Bulletin, vol. xxii, 1902, p. 539-544, pl. 1-2. 1904.
549. Records of the dredging and other collecting and hydrographic stations of the U. S. Fisheries steamer *Albatross* in 1903. By Franklin Swift, compiled by Harry C. Fassett. Report for 1903, p. 123-134. 1904.
550. The echinoderms of the Woods Hole region. By Hubert Lyman Clark. Bulletin, vol. xxii, 1902, p. 545-576, pl. 1-14. 1904.
551. List of fishes dredged by the steamer *Albatross* off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridae. By David Starr Jordan and Edwin Chapin Starks. Bulletin, vol. xxii, 1902, p. 577-630, pl. i-vii. 1904.
555. The commercial fisheries of the interior lakes and rivers of New York and Vermont. By John N. Cobb. Report for 1903, p. 225-246. 1904.
558. The medusae of the Woods Hole region. By Charles W. Hargitt. Bulletin, vol. xxiv, 1904, p. 21-79, 30 text fig., pl. i-vii. 1904.
559. The osteology and immediate relations of the tilefish, *Lopholatilus chamaeleonticeps*. By Frederick A. Lucas. Bulletin, vol. xxiv, 1904, p. 81-86, 3 text fig. 1904.
560. The blood vascular system of the tilefish, *Lopholatilus chamaeleonticeps*. By C. F. Silvester. Bulletin, vol. xxiv, 1904, p. 87-114, 15 text fig., pl. i. 1904.
561. The fish parasites of the genus *Argulus* found in the Woods Hole region. By Charles B. Wilson. Bulletin for 1904, p. 115-131, 12 text fig. 1904.
562. The seaweed industries of Japan. The utilization of seaweeds in the United States. By Hugh M. Smith. Bulletin, vol. xxiv, 1904, p. 133-181, 31 text fig., pl. i-v. 1905.
563. The function of the lateral-line organs in fishes. By G. H. Parker. Bulletin, vol. xxiv, 1904, p. 183-207. 1905.
564. Isopods from the Alaska salmon investigation. By Harriet Richardson. Bulletin, vol. xxiv, 1904, p. 209-221, 10 text fig. 1905.
565. List of fishes collected in Boulder County, Colo., with description of a new species of *Leuciscus*. By Chancey Juday. Bulletin, vol. xxiv, 1904, p. 223-227, 1 text fig. 1905.
566. Biological relation of aquatic plants to the substratum. By Raymond H. Pond. Report for 1903, p. 483-526, 6 text fig. 1905.
567. State ichthyology of Massachusetts. By Theodore Gill. Report for 1904, p. 163-188. 1905.
568. The fish fauna of the Tortugas Archipelago. By David Starr Jordan and Joseph C. Thompson. Bulletin, vol. xxiv, 1904, p. 229-256, 6 text fig. 1905.
569. Distribution of sewage in the waters of Narragansett Bay, with especial reference to the contamination of the oyster beds. By Caleb Allen Fuller. Report for 1904, p. 189-238, 2 text cuts. 1905.
570. Statistics of the fisheries of the South Atlantic States, 1902. Report for 1903, p. 343-410. 1905.
571. Statistics of the fisheries of the Gulf States, 1902. Report for 1903, p. 411-481. 1905.

Doc. No.

572. New starfishes from deep water off California and Alaska. By Walter K. Fisher. Bulletin, vol. xxiv, 1904, p. 291-320. 1905.
574. Notes on the fishes of the streams flowing into San Francisco Bay, California. Critical notes on *Mylocheilus lateralis* and *Leuciscus caurinus*. By John O. Snyder. Report for 1904, p. 327-342, pl. i. 1905.
576. Note regarding the promotion of fishery trade between the United States and Japan. By Hugh M. Smith. Report for 1904, p. 239-243. 1905.
577. Commercial fisheries of the Hawaiian Islands, 1901. By John N. Cobb. Bulletin, vol. xxiii, 1903, pt. ii, p. 716-765, pl. 102-106. 1905.
578. The gas disease in fishes. By M. C. Marsh and F. P. Gorham. Report for 1904, p. 343-376, pl. i-iii. 1905.
579. A revision of the cave fishes of North America. By Ulysses O. Cox. Report for 1904, p. 377-393, 11 text fig., pl. i-vi. 1905.
583. Parasites of fishes of Beaufort, N. C. By Edwin Linton. Bulletin, vol. xxiv, 1904, p. 321-428, pl. i-xxxiv. 1905.
584. Physiological studies of the chinook salmon. By Charles Wilson Greene. Bulletin, vol. xxiv, 1904, p. 429-456, 6 text fig. 1905.
585. The Amphipoda of southern New England. By S. J. Holmes. Bulletin, vol. xxiv, 1904, p. 457-529, 65 text fig., pl. i-xiii. 1905.
586. Hydroids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By C. C. Nutting. Bulletin, vol. xxiii, 1903, pt. iii, p. 931-959, pl. i-xiii. 1905.
587. The Brachyura and Macrura of the Hawaiian Islands. By Mary J. Rathbun. Bulletin, vol. xxiii, 1903, pt. iii, p. 827-930, 79 text fig., pl. i-xxiv. 1905.
588. Schizopods of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. E. Ortmann. Bulletin, vol. xxiii, 1903, pt. iii, p. 961-973. 1905.
589. Nemerteans of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By Wesley R. Coe. Bulletin, vol. xxiii, 1903, pt. iii, p. 975-986, 7 text fig., pl. i. 1905.
590. The commercial fisheries of the Hawaiian Islands in 1903. By John N. Cobb. Report for 1904, p. 433-511. 1905.
591. Notes on the food and parasites of some fresh-water fishes from the lakes at Madison, Wis. By W. S. Marshall and N. C. Gilbert. Report for 1904, p. 513-522. 1905.
594. Report of the Commissioner of Fisheries for the year ending June 30, 1905. 46 p. 1905.
596. The physiological effects upon fishes of changes in the density and salinity of water. By F. B. Sumner. Bulletin, vol. xxv, 1905, p. 53-108, 2 text fig. 1906.
597. Opisthobranchiate Mollusca from Monterey Bay, California, and vicinity. By F. M. MacFarland. Bulletin, vol. xxv, 1905, p. 109-151, pl. xviii-xxxi. 1906.
598. Hirudinea and Oligochaeta collected in the Great Lakes region. By J. P. Moore. Bulletin, vol. xxv, 1905, p. 153-171, 6 text fig., pl. xxxii. 1906.
599. The starfishes of the Hawaiian Islands. By W. K. Fisher. Bulletin, vol. xxiii, 1903, pt. iii, p. 987-1130, 2 text fig., pl. i-xlix. 1906.
600. Medusae of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. G. Mayer. Bulletin, vol. xxiii, 1903, pt. iii, p. 1131-1143, pl. i-iii. 1906.
601. Polychaetous annelids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. L. Treadwell. Bulletin, vol. xxiii, 1903, pt. iii, p. 1145-1181, 81 text fig. 1906.
605. The fishes of Samoa. Description of the species found in the archipelago, with a provisional list of fishes of Oceania. By David Starr Jordan and Alvin Seale. Bulletin, vol. xxv, 1905, p. 173-455, 111 text fig., pl. xxxiii-lviii. 1906.
609. Statistics of the fisheries of the Middle Atlantic States for 1904. 122 p. 1907.
614. List of publications of Bureau of Fisheries available for distribution, Nov. 7, 1911. 23 p. 1911.
623. Notes on fishes of Hawaii, with descriptions of new species. By David S. Jordan and John O. Snyder. Bulletin, vol. xxvi, 1906, p. 205-218, 4 text fig., pl. xn-xiii. 1907.

Doc. No.

624. The fishes of Alaska. By Barton W. Evermann and E. L. Goldsborough. Bulletin, vol. xxvi, 1906, p. 219-360, 144 text fig., pl. xiv-xlii. 1907.
625. The physiology of the digestive tract of elasmobranchs. By M. X. Sullivan. Bulletin, vol. xxvii, 1907, p. 1-27, pl. i. 1907.
634. Devils Lake, North Dakota: A study of physical and biological conditions, with a view to the acclimatization of fish. By Thomas E. B. Pope. 22 p. pl. i-iii, 1 map. 1908.
636. Relationships of the fish fauna of the lakes of southeastern Oregon. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 69-102, 4 text fig., 1 map. 1908.
637. The fishes of the Sacramento-San Joaquin basin, with a study of their distribution and variation. By Cloudsley Rutter. Bulletin, vol. xxvii, 1907, p. 103-152, 4 text fig., pl. vi. 1908.
638. The fishes of the coastal streams of Oregon and northern California. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 153-189, text fig. 1-5, 1 map. 1908.
640. Fishes from islands of the Philippine Archipelago. By David Starr Jordan and Robert E. Richardson. Bulletin, vol. xxvii, 1907, p. 233-287, text fig. 1-12. 1908.
642. Report of the Commissioner of Fisheries for the year ended June 30, 1908. 23 p. 1908.
645. The fisheries of Alaska in 1908. By M. C. Marsh and J. N. Cobb. 78 p. 1909.
646. International regulations of the fisheries on the high seas. By O. T. Olsen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 77-90. 1910.
647. International regulations of the fisheries on the high seas. By Charles E. Fryer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 91-102. 1910.
648. International regulations of the fisheries on the high seas. By Charles Hugh Stevenson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 103-180, 3 text fig. 1910.
649. Work of the International Fisheries Commission. By David Starr Jordan. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 181-186. 1910.
650. Some reasons for failure of fish-protective legislation, and some suggested remedies. By Oregon Milton Dennis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 187-192. 1910.
651. National aspects of angling and the protection of game fishes. By H. Wheeler Perce. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 193-198. 1910.
652. Sport fishing in California and Florida. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 199-207, pl. i-vi. 1910.
653. Lobsters and the lobster problem in Massachusetts. By George W. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 209-217. 1910.
654. A method of lobster culture. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 219-240, 7 text fig., pl. vii-xi. 1910.
655. Sea mussels and dogfish as food. By Irving A. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 241-257. 1910.
656. On the wholesomeness of oysters as food. By Henry C. Rowe. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 259-267. 1910.

Doc. No.

657. Effects of menhaden fishing upon the supply of menhaden and of the fishes that prey upon them. By Walter E. Hathaway. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 269-278. 1910.
658. Effects of the menhaden and mackerel fisheries upon the fish supply. By W. C. Kendall. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 279-293. 1910.
659. An improved and practical method of packing fish for transportation. By A. Sölling. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 295-301. 1910.
660. A process for preserving the pearl-oyster fisheries and for increasing the value of the yield of pearls. By John I. Solomon. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 303-313, 3 text fig. 1910.
661. Fur seals and the seal fisheries. By Charles H. Townsend. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 315-322. 1910.
662. Economic conditions of the fisheries in Italy. By Guido Rossati. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 323-332. 1910.
663. The fisheries and the guano industry of Peru. By Robert E. Coker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 333-365, pl. xii-xvii. 1910.
664. The fisheries of China. By W. W. Yen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 367-373. 1910.
665. The fisheries of Japan considered from a geographical standpoint. By T. Kitahara. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 375-379. 1910.
668. The abuse of the scaphander in the sponge fisheries. By Ch. Flegel. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 513-543. 1910.
670. Sponge culture. By Jules Cotte. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 587-614. 1910.
671. Experiments in the artificial propagation of fresh-water mussels. By George Lefevre and W. C. Curtis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 615-626. 1910.
672. A plan for promoting the whitefish production of the Great Lakes.^a By S. W. Downing. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 627-633. 1910.
673. A plan for promoting the whitefish production of the Great Lakes.^a By Frank N. Clark. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 635-642. 1910.
674. A plan for promoting the whitefish production of the Great Lakes.^a By Paul Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 643-684, 5 text fig. 1910.
675. Fish-cultural practices in the Bureau of Fisheries. By John W. Titcomb. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 697-757, 13 text fig., pl. lxxvii-lxxxix. 1910.
676. A new principle of aquiculture and transportation of live fishes. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 759-780, 1 text fig., pl. xc-c. 1910.

^a Documents 672, 673, and 674, with discussion occupying p. 685-695, are issued under one cover.

Doc. No.

677. A method of cultivating rainbow trout and other Salmonidæ. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 781-787, 3 text fig. 1910.
678. Possible expansion of shad-hatchery work. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 789-793. 1910.
679. The comparative value of foods for rainbow trout and other salmonoids. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 795-798. 1910.
680. Apparatus and methods used at the marine fish hatchery at Flødevig, Norway. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 799-809, 8 text fig., pl. cr. 1910.
681. The utility of sea-fish hatching. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 811-816. 1910.
682. Propagation and protection of the lkhne salmon. By P. P. C. Hoek. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 817-829, 2 text fig. 1910.
683. Fishes in their relation to the mosquito problem. By William P. Seal. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 831-838. 1910.
684. Foods for young salmonoid fishes. By Charles G. Atkins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 839-851. 1910.
685. Fresh-water shrimp, a natural fish food. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 853-858. 1910.
686. The cultivation of the turbot. By R. Anthony. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 859-870, 2 text fig., pl. cu-ciii. 1910.
687. The treatment of fish-cultural waters for the removal of algæ. By M. C. Marsh and R. K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 871-890, 2 text fig. 1910.
688. Notes on the dissolved content of water in its effect upon fishes. By M. C. Marsh. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 891-906. 1910.
689. Causes of diseases in young salmonoids. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 907-916. 1910.
690. Radical prevention of Costia necatrix in salmonoid fry. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 917-928. 1910.
691. Treatment of fungus on fishes in captivity. By L. B. Spencer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 929-932. 1910.
692. Methods of combating fungus diseases on fishes in captivity. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 933-936. 1910.
693. A new method of combating fungus on fishes in captivity. By Paul Zirzow. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 937-940. 1910.
694. Experience in abating disease among brook trout. By Albert Rosenberg. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 941-945. 1910.

Doc. No.

695. American fishes in Italy. By G. Besana. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 947-954. 1910.
696. Acclimatization of American fishes in Argentina. By E. A. Tullian. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 955-965. 1910.
697. Introduction of American fishes into New Zealand. By L. F. Ayson. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 967-975. 1910.
698. Naturalization of American fishes in Austrian waters. By Franz von Pirko. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 977-982. 1910.
699. Causes of degeneration of American trouts in Austria. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 983-989. 1910.
700. New and improved devices for fish culturists. By Alfred E. Fuller. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 991-1000, pl. civ-cvi. 1910.
701. A device for counting young fish. By Robert K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1001-1004, 1 text fig. 1910.
702. A method of transporting live fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1005-1007. 1910.
703. A method of measuring fish eggs. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1009-1014, 2 text fig. 1910.
704. An improvement in hatching and rearing boxes; with notes on continuous feeding of the fry of Salmonidæ. By G. E. Simms. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1015-1023, 3 text fig. 1910.
705. Devices for the use of fish hatcheries and aquaria. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1025-1035, 6 text fig. 1910.
706. New methods of transporting eggs and fish. By W. S. Kincaid. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1037-1039. 1910.
707. Fishways. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1041-1057, 21 text fig. 1910.
708. A plea for observation of habits of fishes and against undue generalization. By Theodore Gill. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1059-1069. 1910.
709. The habits and life history of the toadfish (*Opsanus tau*). By E. W. Gudger. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1071-1110, 1 text fig., pl. cvii-cxiii. 1910.
710. Methods of studying the habits of fishes and recording their life histories; with an account of the breeding habits of the horned dace. By Jacob Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1111-1136, 5 text fig., pl. cxiv-cxx. 1910.
711. A method of studying the life history of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1137-1141. 1910.
712. Effects of changes in the density of water upon the blood of fishes. By G. G. Scott. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1143-1150. 1910.

Doc. No.

713. Internal parasites of the Sebago salmon. By Henry B. Ward. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1151-1194, pl. cxxi. 1910.
714. Notes on the flesh parasites of marine food fishes. By Edwin Linton. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1195-1209. 1910.
715. Structure and functions of the ear of the squeteague. By G. H. Parker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1211-1224, pl. cxxii. 1910.
716. An intensive study of the fauna and flora of a restricted area of sea bottom. By Francis B. Sumner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1225-1263, 27 text fig., 2 charts. 1910.
717. Development of sponges from tissue cells outside of the body of the parent. By H. V. Wilson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1265-1271. 1910.
718. Gases dissolved in the waters of Wisconsin lakes. By E. A. Birge. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1273-1294, 20 text fig. 1910.
719. Volumetric studies of the food and feeding of oysters. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1295-1308, 6 text fig., pl. cxxv. 1910.
720. A plan for an educational exhibit of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1309-1314. 1910.
721. A plan for an educational exhibit of fishes. By Roy W. Miner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1315-1346, 9 text fig., pl. cxxvi-cxli. 1910.
722. Outline for an educational exhibit of fishes. By Frederic A. Lucas. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1341-1351. 1910.
723. A method of preparing fish for museum and exhibition purposes. By Dwight Franklin. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1353-1355, pl. cxlii. 1910.
724. New methods of preparing fishes for museum exhibit. By J. D. Figgins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1357-1363. 1910.
725. The U. S. Bureau of Fisheries: Its establishment, functions, organization, resources, operations, and achievements. By Hugh M. Smith. Second edition. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, 1908, p. 1365-1411, pl. cxliii-clvi. 1910.
726. Organization and sessional business of the Fourth International Fishery Congress, Washington, U. S. A., 1908. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, p. 1-76. 1910.
728. Distribution of fish and fish eggs during the fiscal year 1909. 103 p. 1910.
729. Condition and extent of the oyster beds of James River, Virginia. By H. F. Moore. 83 p. 1910.
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735. The fur-seal fisheries of Alaska in 1909. By Walter I. Lembkey. 53 p. 1910.

Doc. No.

736. Marine isopods collected in the Philippines by the U. S. fisheries steamer *Albatross* in 1907-8. By Harriet Richardson. 44 p., 39 text fig. 1910.
738. Influence of the eyes, ears, and other allied sense organs on the movements of the dogfish, *Mustelus canis* (Mitchill). By George H. Parker. Bulletin, vol. xxix, 1909, p. 43-57. 1910.
739. Barnacles of Japan and Bering Sea. By Henry A. Pilsbry. Bulletin, vol. xxix, 1909, p. 59-84, 11 text fig., pl. viii-xvii. 1911.
741. Dredging and hydrographic records of the U. S. fisheries steamer *Albatross* during the Philippine expedition, 1907-1910. 97 p. 1910.
742. The food value of sea mussels. By Irving A. Field. Bulletin, vol. xxix, 1909, p. 85-128, 2 text fig., pl. xviii-xxv. 1911.
743. The migration of salmon in the Columbia River. By Charles W. Greene. Bulletin, vol. xxix, 1909, p. 129-148, pl. xxvi-xxvii. 1911.
744. Anatomy and physiology of the wing-shell *Atrina rigida*. By Benjamin H. Grave. Bulletin, vol. xxix, 1909, p. 409-438, 15 text fig., pl. xlviii-l. 1911.
745. Condition and extent of the natural oyster beds of Delaware. By H. F. Moore. 29 p., 1 chart. 1911.
747. Natural history of the American lobster. By Francis H. Herrick. Bulletin, vol. xix, 1909, p. 149-408, pl. xxviii-xxlvii, 42 text fig. 1911.
748. Special investigation of the Alaska fur-seal rookeries, 1910. By Harold Heath. 22 p. 1911.
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750. Development of sponges from dissociated tissue cells. By H. V. Wilson. Bulletin, vol. xxx, 1910, p. 1-30, pl. i-v. 1911.
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761. A review of the cephalopods of Western North America. By S. Stillman Berry. Bulletin, vol. xxx, 1910, p. 267-336, pl. xxxii-lvi. 1912.
762. Some hydroids of Beaufort, North Carolina. By C. McLean Fraser. Bulletin, vol. xxx, 1910, p. 337-388, 52 text fig. 1912.
763. Preliminary examination of the halibut fishing grounds of the Pacific coast. By A. B. Alexander. With introductory notes on the halibut fishery. By H. B. Joyce. 56 p. 1912.
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768. A new species of trout from Lake Tahoe. By John Otterbein Snyder. Bulletin vol. xxxii, 1912, p. 23-28. 1912.

Doc. No.

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777. Anatomy and histology of the alimentary tract of the King salmon. By Charles W. Greene. Bulletin, vol. xxxii, 1912. (In press.)

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69. Commerce and industries of Alaska, Hawaii, Porto Rico, and Philippine Islands. 116 pp. 1913.
70. Shoe and leather trade in Italy and Austria-Hungary. (In press.)

SPECIAL CONSULAR REPORTS.

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TARIFF SERIES.

- No. 2. Tariffs on agricultural and animal products. 120 pp. 1907.
- No. 3A. Supplement to Tariff Series, No. 3. 34 pp. 1910.
- No. 6A. Commercial agreement between the United States and France. 4 pp. 1908.
- No. 6B. Proposed new customs tariff of France (2d rev. ed.). 50 pp. 1909.
- No. 6C. Commercial convention between France and Canada. 35 pp. 1909.
- No. 6D. Abrogation of commercial agreement between the United States and France. 4 pp. 1909.
- No. 6E. Proposed new customs tariff of France [supplement to Tariff Series No. 6B]. 19 pp. 1910.
- No. 7. Customs tariff of the German Customs Union. Law of Dec. 25, 1902, revised to June, 1911. 127 pp. 1911.
- No. 7A. Supplement to German customs tariff. 10 pp. 1912.
- No. 8. Customs tariff of New Zealand. 36 pp. 1908.
- No. 14. Customs tariff of Bahamas, British West Indies. 12 pp. 1908.
- No. 14A. Supplement to customs tariff of Bahamas. 1 p. 1909.
- No. 14B. Supplement to customs tariff of Bahamas. 2 pp. 1911.
- No. 15. Customs tariff of Italy. 92 pp. 1908.
- No. 15A. Supplement to customs tariff of Italy. 6 pp. 1909.
- No. 15B. Supplement to customs tariff of Italy. 4 pp. 1911.
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- No. 17A. Supplement to customs tariff of Australia. 2 pp. 1909.
- No. 17B. Supplement to customs tariff of Australia. 4 pp. 1910.
- No. 17C. Supplement to customs tariff of Australia. 7 pp. 1911.
- No. 17D. Supplement to customs tariff of Australia. 13 pp. 1912.
- No. 18. Customs tariff of the United Kingdom. 12 pp. 1908.
- No. 19. Commercial travelers in foreign countries. 71 pp. 1908.
- No. 20. Export tariffs of foreign countries. 48 pp. 1909.
- No. 22. Proposed new customs tariff of Argentina. 4 pp. 1909.
- No. 24. Consular regulations of foreign countries. 75 pp. 1910.

- No. 25. Customs tariff of France. 132 pp. 1910.
 No. 25A. Supplement to customs tariff of France. 14 pp. 1912.
 No. 26. Tariff relations of Canada. System now in force and proposed concessions to the United States. Mar., 1911. 39 pp. 1911.
 No. 27. Customs tariff of Cuba. Revised to Nov., 1911. 89 pp. 1911.
 No. 27A. Supplement to customs tariff of Cuba. 1 p. 1911.
 No. 28. Customs tariff of Japan. 88 pp. 1912.

The Bureau issues also from time to time compilations of foreign tariff notes from the Daily Consular and Trade Reports. Nos. 1 to 9 of the series, embodying extracts from the Daily from July 5, 1910, to December 31, 1912, are available for distribution.

MISCELLANEOUS PUBLICATIONS.

- Packing for export. Suggestions for preparation of American merchandise for shipment to foreign countries. [Misc. series No. 5.] 170 pp., 28 text figs. 1911.
 Promotion of commerce. Outline of the service maintained by the Bureau of Foreign and Domestic Commerce and other bureaus and offices of the Government of the United States. [Misc. series No. 6a.] 29 pp. 1912.
 Factors in foreign trade. Language, currency, weights and measures, postal rates, and parcel-post facilities. [Misc. series No. 7.] 56 pp. 1912.
 Commercial and agricultural organizations of the United States. [Misc. series No. 8.] 125 pp. 1913.
 The sugar industry. Sugar cane and cane sugar in Louisiana, beet-sugar data, and general tables. [Misc., series No. 9.] 127 pp., 2 diag. 1913.
 Analysis of the foreign commerce of the United States. 144 pp. 1906.
 Calendar-year statements, total values of imports and exports of merchandise and of gold and silver. 47 pp. 1911 and 1912.
 Commercial Korea in 1904. 34 pp. 1904.
 Commercial Russia in 1904. 113 pp. 1905.
 Foreign commerce of Spain. 1898. 16 pp. 1899.
 Movement of wholesale prices in Great Britain and the United States. 25 pp. 1904.
 Passenger movement at ports of the United States. 14 pp. 1905.
 Statistical abstract of foreign countries. 470 pp. 1909.
 Statistical record of the progress of the United States, 1800-1912, and monetary, commercial, and financial statistics of principal countries. [From Statistical Abstract of the United States.] 87 pp. 1912.
 Sugar production and consumption of the world. 112 pp. 1906.
 Transportation routes and systems of the world. Map. 1909.

BUREAU OF LIGHTHOUSES.

- Light list, Atlantic and Gulf coasts of the United States. Corrected to July 1, 1912. 280 pp. 1912.
 Same, Pacific coast—United States, Canada, and Hawaiian and Samoan Islands. Corrected to Mar. 15, 1912. 100 pp. 1912.
 Same, Great Lakes, United States and Canada. Corrected to Oct. 1, 1912. 209 pp. 1912.
 Atlantic coast of the United States. List of buoys and other aids to navigation, Maine and New Hampshire. First lighthouse district. Corrected to July 15, 1911. 88 pp. 1911.
 Same, coast of Massachusetts. Second lighthouse district. Corrected to Aug. 31, 1911. 70 pp. 1911.
 Same, Delaware Bay and River, including Philadelphia Harbor. Fourth lighthouse district. Corrected to Mar. 15, 1911. 30 pp. 1911.
 Same, Cape Henlopen to Cape Lookout, including Chesapeake Bay and North Carolina sounds. Fifth lighthouse district. Corrected to Apr. 15, 1913. 96 pp. 1913.

- Same, Cape Lookout to Hillsboro Inlet. Sixth lighthouse district. Corrected to Oct. 1, 1911. 60 pp. 1911.
- Same, Florida Reefs, and Gulf coast to Cedar Keys. Seventh lighthouse district. Corrected to May 15, 1911. 37 pp. 1911.
- Gulf coast of the United States. Buoy list, Cedar Keys to the Rio Grande. Eighth lighthouse district. Corrected to Dec. 15, 1912. 41 pp. 1912.
- West Indies. List of buoys and other aids to navigation, Porto Rico and adjacent islands. Ninth lighthouse district. Corrected to May 15, 1911. 21 pp. 1911.
- Great Lakes. Buoy list, Lake Erie and Lake Ontario and St. Lawrence River. Tenth lighthouse district. Corrected to Aug. 1, 1912. 47 pp. 1912.
- Same, Lake Huron and Lake Superior and connecting waters. Eleventh lighthouse district. Corrected to Oct. 1, 1912. 67 pp. 1912.
- Same, Lake Michigan and Green Bay. Twelfth lighthouse district. Corrected to Aug. 1, 1912. 44 pp. 1912.
- Light list, upper Mississippi River and tributaries. Thirteenth lighthouse district. Corrected to July 15, 1912. 247 pp. 1912.
- Same, Ohio River and tributaries. Fourteenth lighthouse district. Corrected to June 1, 1912. 121 pp. 1912.
- Same, lower Mississippi River and tributaries. Fifteenth lighthouse district. Corrected to July 15, 1912. 89 pp. 1912.
- Pacific coast of the United States. List of buoys and other aids to navigation, California, Oregon, Washington, Alaska. Sixteenth, Seventeenth, and Eighteenth lighthouse districts. Corrected to July 1, 1911. 84 pp. 1911.
- Alaska. Buoy list. Sixteenth lighthouse district. Corrected to May 1, 1913. (In press.)
- Pacific islands of the United States. List of buoys and other aids to navigation, Hawaiian and Samoan Islands. Nineteenth lighthouse district. Corrected to July 31, 1911. 21 pp. 1911.
- Annual report of the Commissioner of Lighthouses, 1912. 108 pp. 1913. [There are also on hand a limited supply of each of the annual reports since 1873, except that for 1879.]
- Report upon fog-signal experiments. By Maj. William R. Livermore, Corps of Engineers, U. S. A. 376 pp., 64 pls. 1894.
- Aberrations of audibility of fog-signals. By Arnold B. Johnson, chief clerk of the Lighthouse Board. 16 pp., 1 pl. 1885.
- History of the application of electric light to lighting the coasts of France. By Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 pp., 25 pls. 1883.
- Report upon the exhibit of the Lighthouse Board at the World's Columbian Exposition held at Chicago, 1893. By A. B. Johnson, chief clerk, Lighthouse Board. 42 pp., illus. 1894.
- Regulations for lighting bridges, 1912. 14 pp., 5 pls. 1912.
- Whitewash and cement-wash formulas. 1 p. 1906.

The Bureau also, in collaboration with the Coast and Geodetic Survey, publishes weekly, for the benefit of mariners and others interested in navigation, a Notice to Mariners. Requests to be placed on the mailing list to receive the publication regularly should be addressed to the Division of Publications.

BUREAU OF NAVIGATION.

- Annual report of the Commissioner of Navigation, 1912. 252 pp. 1912. [There are also available a few copies of the report for each year since 1894, with the exception of 1905 and 1909.]
- Sailing vessels of the United States with official numbers and signal letters. Part VI of the 44th annual list of merchant vessels of the United States for the year ending June 30, 1912. 109 pp., ll. 1912.
- Rules and regulations relating to the anchorage of vessels in the port of New York. (June 15, 1911.) 8 pp., 8 pls. 1911.
- Rules for the St. Marys River. Apr. 15, 1911. 14 pp. 1911.

Rules and regulations relating to the anchorage and movement of vessels in harbors of Chicago. May 7, 1909. 6 pp., 1 pl. 1909.

Regulations governing radio communication. Feb. 20, 1913. 14 pp. 1913.

BUREAU OF STANDARDS.

In addition to the tests and comparisons made by the Bureau of Standards, its work includes such researches as are involved in the establishment and maintenance of the various standards and units of measurement, the development of measuring instruments and methods of measurement, the determination of physical constants and the properties of materials. The results of these investigations are published in pamphlet form, and in the following pages is given a list of these papers. They cover a wide range of subjects in the field of physical measurements and are issued for general distribution to the scientific, technical, and industrial interests concerned with the subjects treated. The papers will be sent upon request and may be designated by the numbers which precede the titles in the list. It is assumed that individuals generally are interested in a particular class of work; hence this method of distribution has been adopted in order that each may secure the particular information desired.

These papers are also bound from time to time in the form of a bulletin which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential; also to a limited number of persons especially concerned with the work of the Bureau as a whole. Arrangements are now being made, however, for the sale of copies of the Bulletin to private individuals, of which due announcement will be made.

The regulations under which tests and comparisons are made by the Bureau and other general information concerning its work are issued in the form of circulars, which are sent upon request.

TECHNICAL PAPERS.

1. Recomparison of the United States prototype meter. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 5-19. 1905.
2. A study of the silver voltameter. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 21-37. 1905.
3. The so-called international electrical units. By Frank A. Wolff. Bulletin, vol. 1, 1904-5, p. 39-76. 1905.
4. The spectra of mixed gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 77-81. 1905.
5. On secondary spectra and the conditions under which they may be produced. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 83-94. 1905.
6. Some new rectifying effects in conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 95-100. 1905.
7. On fibers resembling fused quartz in their elastic properties. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 101-107. 1905.
8. On the temperature of the arc. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 109-124. 1905.
9. The absolute measurement of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 125-152. 1905.
10. The absolute measurement of capacity. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 153-187. 1905.
11. Optical pyrometry. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 189-254. 1905.

12. On the theory of the Matthews and the Russell-Léonard photometers for the measurement of mean spherical and mean hemispherical intensities. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 255-274. 1905.
13. The testing of clinical thermometers. By C. W. Waldner and L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 275-289. 1905.
14. Measurement of inductance by Anderson's method, using alternating currents and a vibration galvanometer. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 291-338. 1905.
15. Use of serpentine in standards of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 337-348. 1905.
16. The silver coulometer. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 349-364. 1905.
17. History of the standard weights and measures of the United States. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 365-381. 1905.
18. Wattmeter methods of measuring power expended upon condensers and circuits of low power factor. By Edward B. Rosa. Bulletin, vol. 1, 1904-5, p. 383-397. 1905.
19. The relative intensities of metal and gas spectra from electrically conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 399-416. 1905.
20. The use of white walls in a photometric laboratory. By Edward P. Hyde. Bulletin, vol. 1, 1904-5, p. 417-420. 1905.
21. Influence of wave form on the rate of integrating induction wattmeters. By E. B. Rosa, M. G. Lloyd, and C. E. Reid. Bulletin, vol. 1, 1904-5, p. 421-434. 1905.
22. Detector for very small alternating currents and electrical waves. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 435-438. 1905.
23. The positive charges carried by the canal rays. By L. W. Austin. Bulletin, vol. 1, 1904-5, p. 439-441. 1905.
24. Radiation from platinum at high temperatures. By G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 443-447. 1905.
25. A five-thousand volt generator set. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 449-451. 1905.
26. Talbot's law as applied to the rotating sector disk. By Edward P. Hyde. Bulletin, vol. 2, 1906, p. 1-32. 1906.
27. A new determination of the electromotive force of Weston and Clark standard cells by an absolute electro-dynamometer. By K. E. Guthe. Bulletin, vol. 2, 1906, p. 33-70. 1906.
28. The Gray absolute electro-dynamometer. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 71-86. 1906.
29. Construction and calculation of absolute standards of inductance. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 87-143. 1906.
30. An efficiency meter for electric incandescent lamps. By E. P. Hyde and H. B. Brooks. Bulletin, vol. 2, 1906, p. 145-160. 1906.
31. Calculation of the self-inductance of single-layer coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 161-187. 1906.
32. Heat treatment of high-temperature mercurial thermometers. By Hobert C. Dickinson. Bulletin, vol. 2, 1906, p. 189-223. 1906.
33. A new potentiometer for the measurement of electromotive force and current. By H. B. Brooks. Bulletin, vol. 2, 1906, p. 225-238. 1906.
34. Spectrum lines as light sources in polariscopic measurements. By Frederick Bates. Bulletin, vol. 2, 1906, p. 239-248. 1906.
35. Polarimetric sensibility and accuracy. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 249-260. 1906.
36. On the platinum-point electrolytic detector for electrical waves. By L. W. Austin. Bulletin, vol. 2, 1906, p. 261-274. 1906.
37. The influence of frequency upon the self-inductance of coils. By J. G. Coffin. Bulletin, vol. 2, 1906, p. 275-296. 1906.
38. Experiments on the Heusler magnetic alloys. By K. E. Guthe and L. W. Austin. Bulletin, vol. 2, 1906, p. 297-316. 1906.
39. A pocket spectrophotometer. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 317-318. 1906.

40. Preliminary measurements on temperature and selective radiation of incandescent lamps. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 2, 1906, p. 319-329. 1906.
41. Revision of the formulæ of Weinstein and Stefan for the mutual inductance of coaxial coils. By Edward B. Rosa. Bulletin, vol. 2, 1906, p. 331-357. 1906.
42. The mutual inductance of two circular coaxial coils of rectangular section. By E. B. Rosa and Louis Cohen. Bulletin, vol. 2, 1906, p. 359-414. 1906.
43. On the determination of the mean horizontal intensity of incandescent lamps by the rotating lamp method. By E. P. Hyde and F. E. Cady. Bulletin, vol. 2, 1906, p. 415-437. 1906.
44. Purity and intensity of monochromatic light sources. By P. G. Nutting. Bulletin, vol. 2, 1906, p. 439-456. 1906.
45. Radiometric investigations of infrared absorption and reflection spectra. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 457-478. 1906.
46. A vacuum radiomicrometer. By W. W. Coblentz. Bulletin, vol. 2, 1906, p. 479-483. 1906.
47. On the geometrical mean distances of rectangular areas and the calculation of self-inductance. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 1-41. 1907.
48. The compensated two-circuit electrodynamicometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 43-58. 1907.
49. The complete form of Fechner's law. By P. G. Nutting. Bulletin, vol. 3, 1907, p. 59-64. 1907.
50. A comparison of the unit of luminous intensity of the United States with those of Germany, England, and France. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 65-80. 1907.
51. Geometrical theory of radiating surfaces with discussion of light tubes. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 81-104. 1907.
52. The influence of basic lead acetate on the optical rotation of sucrose in water solution. By F. J. Bates and J. C. Blake. Bulletin, vol. 3, 1907, p. 105-113. 1907.
53. On the colorimetric determination of iron with special reference to chemical reagents. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 115-156. 1907.
54. On sulphocyanic acid. By H. N. Stokes and J. R. Cain. Bulletin, vol. 3, 1907, p. 157-161. 1907.
55. Radiation from and melting points of palladium and platinum. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 3, 1907, p. 163-208. 1907.
56. The mutual inductance of a circle and a coaxial single-layer coil.—The Lorenz apparatus and the Ayrton-Jones absolute electrodynamicometer. By Edward B. Rosa. Bulletin, vol. 3, 1907, p. 209-236. 1907.
57. On the establishment of the thermodynamic scale of temperature by means of the constant-pressure thermometer. By Edgar Buckingham. Bulletin, vol. 3, 1907, p. 237-293. 1907.
58. An exact formula for the mutual inductance of coaxial solenoids. By Louis Cohen. Bulletin, vol. 3, 1907, p. 295-303. 1907.
59. The mutual inductance of coaxial solenoids. By E. B. Rosa and Louis Cohen. Bulletin, vol. 3, 1907, p. 305-324. 1907.
60. The production of high-frequency oscillations from the electric arc. By L. W. Austin. Bulletin, vol. 3, 1907, p. 325-340. 1907.
61. An explanation of the short life of frosted lamps. By Edward P. Hyde. Bulletin, vol. 3, 1907, p. 341-344. 1907.
62. Melting points of the iron group elements by a new radiation method. By G. K. Burgess. Bulletin, vol. 3, 1907, p. 345-355. 1907.
63. On the determination of the mean horizontal intensity of incandescent lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 3, 1907, p. 357-369. 1907.
64. Simultaneous measurement of the capacity and power factor of condensers. By Frederick W. Grover. Bulletin, vol. 3, 1907, p. 371-431. 1907.

65. A new determination of the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 433-604. 1907.
66. A comparison of the various methods of determining the ratio of the electromagnetic to the electrostatic unit of electricity. By E. B. Rosa and N. E. Dorsey. Bulletin, vol. 3, 1907, p. 605-622. 1907.
67. Preliminary specifications for Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 3, 1907, p. 623-640. 1907.
68. Calorimetric resistance thermometers and the transition temperature of sodium sulphate. By H. C. Dickinson and E. F. Mueller. Bulletin, vol. 3, 1907, p. 641-661. 1907.
69. On the standard scale of temperature in the interval 0 to 100° C. By C. W. Waldner and H. C. Dickinson. Bulletin, vol. 3, 1907, p. 663-728. 1907.
70. Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 1-80. 1907.
71. The electrode equilibrium of the standard cell. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 81-89. 1907.
72. A comparative study of plain and frosted lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 4, 1907-8, p. 91-120. 1907.
73. The variation of resistances with atmospheric humidity. By E. B. Rosa and H. D. Babcock. Bulletin, vol. 4, 1907-8, p. 121-140. 1907.
74. The self-inductance of a toroidal coil of rectangular section. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 141-148. 1907.
75. On the self-inductance of circles. By E. B. Rosa and Louis Cohen. Bulletin, vol. 4, 1907-8, p. 149-159. 1907.
76. The influence of frequency on the resistance and inductance of solenoidal coils. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 161-178. 1907.
77. The atomic weight of hydrogen. By W. A. Noyes. Bulletin, vol. 4, 1907-8, p. 179-204. 1908.
78. The best method of demagnetizing iron in magnetic testing. By G. W. Burrows. Bulletin, vol. 4, 1907-8, p. 205-274. 1908.
79. A deflection potentiometer for voltmeter testing. By H. B. Brooks. Bulletin, vol. 4, 1907-8, p. 275-300. 1908.
80. The self and mutual inductance of linear conductors. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 301-344. 1908.
81. The atomic weight of chlorine. By W. A. Noyes and H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 345-364. 1908.
82. The preparation of chloroplatinic acid by electrolysis of platinum black. By H. C. P. Weber. Bulletin, vol. 4, 1907-8, p. 365-367. 1908.
83. The self-inductance of a coil of any length wound with any number of layers of wire. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 369-381. 1908.
84. Self-inductance of a solenoid of any number of layers. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 383-390. 1908.
85. Instruments and methods used in radiometry. By W. W. Coblentz. Bulletin, vol. 4, 1907-8, p. 391-460. 1908.
86. A quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 4, 1907-8, p. 461-466. 1908.
87. Apparatus for determination of the form of a wave and magnetic flux. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 4, 1907-8, p. 467-476. 1908.
88. Effect of wave form upon the iron losses in transformers. By Merton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 477-510. 1908.
89. The luminous properties of electrically conducting helium gas. By P. G. Nutting. Bulletin, vol. 4, 1907-8, p. 511-523. 1908.
90. Function of a periodic variable given by the steady reading of an instrument; with a note on the use of the capillary electrometer with alternating voltages. By Morton G. Lloyd. Bulletin, vol. 4, 1907-8, p. 525-532. 1908.
91. Selective radiation from the Nernst glower. By W. W. Coblentz. Bulletin, vol. 4, 1907-8, p. 533-551. 1908.

92. The testing of glass volumetric apparatus. By N. S. Osborne and B. H. Veazey. Bulletin, vol. 4, 1907-8, p. 553-601. 1908.
93. Formulae and tables for the calculation of mutual and self inductance. By Edward B. Rosa and Louis Cohen. Bulletin, vol. 5, 1908-9, p. 1-132. 1908.
94. Some contact rectifiers of electric currents. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 133-147. 1908.
95. A method for producing feebly damped high-frequency electrical oscillations for laboratory measurements. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 149-152. 1908.
96. On the advantages of a high spark frequency in radio-telegraphy. By L. W. Austin. Bulletin, vol. 5, 1908-9, p. 153-157. 1908.
97. Selective radiation from various solids, I. By W. W. Coblentz. Bulletin, vol. 5, 1908-9, p. 159-191. 1908.
98. Remarks on the quartz compensating polariscope with adjustable sensibility. By Frederick Bates. Bulletin, vol. 5, 1908-9, p. 193-198. 1908.
99. Methods of obtaining cooling curves. By George K. Burgess. Bulletin, vol. 5, 1908-9, p. 199-225. 1908.
100. Note on the approximate values of Bessel's functions for large arguments. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 227-230. 1908.
101. The influence of terminal apparatus on telephonic transmission. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 231-241. 1909.
102. The principles involved in the selection and definition of the fundamental electrical units to be proposed for international adoption. By F. A. Wolff. Bulletin, vol. 5, 1908-9, p. 243-290. 1908.
103. The luminous equivalent of radiation. By P. G. Nutting. Bulletin, vol. 5, 1908-9, p. 261-308. 1909.
104. The temperature formula of the Weston standard cell. By F. A. Wolff. Bulletin, vol. 5, 1908-9, p. 309-337. 1909.
105. Radiation constants of metals. By W. W. Coblentz. Bulletin, vol. 5, 1908-9, p. 339-379. 1909.
106. Dependence of magnetic hysteresis upon wave form. By Morton G. Lloyd. Bulletin, vol. 5, 1908-9, p. 381-411. 1909.
107. A new form of standard resistance. By Edward B. Rosa. Bulletin, vol. 5, 1908-9, p. 413-434. 1909.
108. Errors in magnetic testing with ring specimens. By Morton G. Lloyd. Bulletin, vol. 5, 1908-9, p. 435-452. 1909.
109. The testing of transformer steel. By M. G. Lloyd and J. V. S. Fisher. Bulletin, vol. 5, 1908-9, p. 453-482. 1909.
110. A new method of determining the focal length of converging lenses. By Irwin G. Priest. Bulletin, vol. 5, 1908-9, p. 483-497. 1909.
111. A new method for the absolute measurement of resistance. By Edward B. Rosa. Bulletin, vol. 5, 1908-9, p. 499-509. 1909.
112. The theory of coupled circuits. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 511-541. 1909.
113. A volt scale for a watts-per-candle meter. By Herbert E. Ives. Bulletin, vol. 5, 1908-9, p. 543-547. 1909.
114. The coefficient of reflection of electrical waves at a transition point. By Louis Cohen. Bulletin, vol. 5, 1908-9, p. 549-554. 1909.
115. A tungsten comparison lamp in the photometry of carbon lamps. By Herbert E. Ives and L. R. Woodhull. Bulletin, vol. 5, 1908-9, p. 555-558. 1909.
116. The determination of the ratio of transformation and of the phase relations in transformers. By E. B. Rosa and M. G. Lloyd. Bulletin, vol. 6, 1909-10, p. 1-30. 1909.
117. The determination of the magnetic induction in straight bars. By Charles W. Burrows. Bulletin, vol. 6, 1909-10, pp. 31-88. 1909.
118. A method for constructing the natural scale of pure color. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 89-93. 1909.
119. An approximate experimental method for the analysis of EMF waves. By P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 95-106. 1909.

120. Note on the thermoelectric properties of tantalum and tungsten. By W. W. Coblentz. Bulletin, vol. 6, 1909-10, pp. 107-110. 1909.
121. The estimation of the temperature of copper by means of optical pyrometers. By George K. Burgess, assisted by J. J. Crowe. Bulletin, vol. 6, 1909-10, pp. 111-119. 1909.
122. The resolving power of objectives. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 121-124. 1909.
123. The theory of the Hampson liquefier. By Edgar Buckingham. Bulletin, vol. 6, 1909-10, pp. 125-147. 1909.
124. Platinum resistance thermometry at high temperatures. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 6, 1909-10, pp. 149-230. 1909.
125. The daylight efficiency of artificial illuminants. By H. E. Ives. Bulletin, vol. 6, 1909-10, pp. 231-246. 1909.
126. Coupled currents in which the secondary has distributed inductance and capacity. By Louis Cohen. Bulletin, vol. 6, 1909-10, pp. 247-253. 1909.
127. Effect of phase of harmonics upon acoustic quality. By M. G. Lloyd and P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 255-263. 1909.
128. White light from the mercury arc and its complementarity. By Herbert E. Ives. Bulletin, vol. 6, 1909-10, pp. 265-271. 1910.
129. The regulation of potential transformers and the magnetizing current. By M. G. Lloyd and P. G. Agnew. Bulletin, vol. 6, 1909-10, pp. 273-280. 1909.
130. The determination of the constants of instrument transformers. By P. G. Agnew and T. T. Fitch. Bulletin, vol. 6, 1909-10, pp. 281-299. 1909.
131. Selective radiation from various solids, II. By W. W. Coblentz. Bulletin, vol. 6, 1909-10, pp. 301-319. 1909.
132. Luminous efficiency of the fire fly. By Herbert E. Ives and W. W. Coblentz. Bulletin, vol. 6, 1909-10, pp. 321-336. 1909.
133. Luminosity and temperature. By P. G. Nutting. Bulletin, vol. 6, 1909-10, pp. 337-346. 1909.
134. A theoretical and experimental study of the vibration galvanometer. By F. Wenner. Bulletin, vol. 6, 1909-10, pp. 347-378. 1909.
135. Specific heat of some calcium chloride solutions between -35° C. and $+20^{\circ}$ C. By H. C. Dickinson, E. F. Mueller, and E. B. George. Bulletin, vol. 6, 1909-10, pp. 379-408. 1910.
136. On the definition of the ideal gas. By Edgar Buckingham. Bulletin, vol. 6, 1909-10, pp. 409-429. 1909.
137. Mica condensers as standards of capacity. By Harvey L. Curtis. Bulletin, vol. 6, 1909-10, pp. 431-488. 1911.
138. The mutual induction of two parallel coaxial circles in terms of hypergeometrical series. By Frederick W. Grover. Bulletin, vol. 6, 1909-10, pp. 489-502. 1911.
139. A new method for the absolute measurement of electric quantity. By Burton McCollum. Bulletin, vol. 6, 1909-10, pp. 503-526. 1911.
140. The comparative sensitiveness of some common detectors of electrical oscillations. By Louis W. Austin. Bulletin, vol. 6, 1909-10, pp. 527-542. 1911.
141. Photometric units and nomenclature. By E. B. Rosa. Bulletin, vol. 6, 1909-10, pp. 543-572. 1911.
142. A modified method for the determination of relative wave-lengths [especially adapted to the establishment of secondary standards]. By Irwin G. Priest. Bulletin, vol. 6, 1909-10, pp. 573-606. 1911.
143. Note on the temperature scale between 100° and 500° C. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 7, 1910-11, pp. 1-11. 1911.
144. A new form of direct-reading candlepower scale and recording device for precision photometers. By George W. Middlekauff. Bulletin, vol. 7, 1910-11, pp. 11-43. 1911.
145. A device for measuring the torque of electrical instruments. By P. G. Agnew. Bulletin, vol. 7, 1910-11, pp. 45-48. 1911.

146. The intensities of some hydrogen, argon, and helium lines in relation to current and pressure. By P. G. Nutting and Orin Tugman. Bulletin, vol. 7, 1910-11, pp. 49-70. 1911.
147. The temperature coefficient of resistance of copper. By J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 71-101. 1911.
148. The electrical conductivity of commercial copper. By F. A. Wolff and J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 103-126. 1911.
149. On the constancy of the sulphur boiling point. By C. W. Waldner and C. K. Burgess. Bulletin, vol. 7, 1910-11, pp. 127-130. 1911.
150. Note on oscillatory interference bands, and some practical applications. By George O. Squier and Albert C. Crehore. Bulletin, vol. 7, 1910-11, pp. 131-142. 1911.
151. The effect of preliminary heat treatment upon the drying of clays. By A. V. Bleininger. Bulletin, vol. 7, 1910-11, pp. 143-195. 1911.
152. The reflecting power of various metals. By W. W. Coblenz. Bulletin, vol. 7, 1910-11, pp. 197-225. 1911.
153. The action of sunlight and air upon some lubricating oils. By C. E. Waters. Bulletin, vol. 7, 1910-11, pp. 227-234. 1911.
154. The visibility of radiation—A recalculation of König's data. By P. G. Nutting. Bulletin, vol. 7, 1910-11, pp. 235-238. 1911.
155. A photometric attachment for spectroscopes. By P. G. Nutting. Bulletin, vol. 7, 1910-11, pp. 239-241. 1911.
156. Selective radiation from various substances, III. By W. W. Coblenz. Bulletin, vol. 7, 1910-11, pp. 243-294. 1911.
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158. Some experiments with coupled high-frequency circuits. By L. W. Austin. Bulletin, vol. 7, 1910-11, pp. 301-314. 1911.
159. Some quantitative experiments in long-distance radiotelegraphy. By L. W. Austin. Bulletin, vol. 7, 1910-11, pp. 315-363. 1911.
160. The behavior of high-boiling mineral oils on heating in the air. By C. E. Waters. Bulletin, vol. 7, 1910-11, pp. 365-376. 1911.
161. The determination of vanadium in vanadium and chrome-vanadium steels. By J. R. Cain. Bulletin, vol. 7, 1910-11, pp. 377-392. 1911.
162. On the computation of the constant C_2 of Planck's equation by an extension of Paschen's method of equal ordinates. By Edgar Buckingham and J. H. Dellinger. Bulletin, vol. 7, 1910-11, pp. 393-406. 1911.
163. A comparison of American direct-current switchboard voltmeters and ammeters. By T. T. Fitch and C. J. Huber. Bulletin, vol. 7, 1910-11, pp. 407-422. 1911.
164. Study of the current transformer with particular reference to iron loss. By P. G. Agnew. Bulletin, vol. 7, 1910-11, pp. 423-474. 1911.
165. Thermodynamics of concentration cells. By H. S. Carhart. Bulletin, vol. 7, 1910-11, pp. 475-494. 1911.
166. The capacity and phase difference of paraffined paper condensers as functions of temperature and frequency. By F. W. Grover. Bulletin, vol. 7, 1910-11, pp. 495-578. 1911.
167. The steam-turbine expansion line on the Mollier diagram and a short method of finding the reheat factor. By Edgar Buckingham. Bulletin, vol. 7, 1910-11, pp. 579-617. 1911.
168. Radiometric investigation of water of crystallization, light filters, and standard absorption bands. By W. W. Coblenz. Bulletin, vol. 7, 1910-11, pp. 619-663. 1911.
169. Formulas and tables for the calculation of mutual and self-reduction. [2d ed., rev. and enl.] By E. B. Rosa and F. W. Grover. Bulletin, vol. 8, 1911-12, pp. 1-237. 1912.
170. The correction for emergent stem of the mercurial thermometer. By Edgar Buckingham. Bulletin, vol. 8, 1911-12, pp. 239-267. 1911.
171. A determination of the international ampere in absolute measure. By E. B. Rosa, N. E. Dorsey, and J. M. Miller. Bulletin, vol. 8, 1911-12, pp. 269-393. 1912.

172. Deflection potentiometers for current and voltage measurements. By H. B. Brooks. Bulletin, vol. 8, 1911-12, pp. 395-417. 1912.
173. Outline of design of deflection potentiometers, with notes on the design of moving-coil galvanometers. By H. B. Brooks. Bulletin, vol. 8, 1911-12, pp. 419-444. 1912.
174. The determination of total sulphur in india rubber. By C. E. Waters and J. B. Tuttle. Bulletin, vol. 8, 1911-12, pp. 445-453. 1912.
175. The measurement of the inductances of resistance coils. By F. W. Grover and H. L. Curtis. Bulletin, vol. 8, 1911-12, pp. 1-35. 1912.
176. Luminous properties of electrically conducting helium gas. II. Reproducibility. By P. G. Nutting. Bulletin, vol. 8, 1911-12, pp. 487-494. 1912.
177. Resistance coils for alternating current work. By H. L. Curtis and F. W. Grover. Bulletin, vol. 8, 1911-12, pp. 1-23. 1912.
178. The hydrolysis of sodium oxalate in its influence upon the test for neutrality. By William Blum. Bulletin, vol. 8, 1911-12, pp. 1-20. 1912.
179. Wave-lengths of neon. By Irwin G. Priest. Bulletin, vol. 8, 1911-12, pp. 1-6. 1912.
180. On the deduction of Wien's displacement law. By Edgar Buckingham. Bulletin, vol. 8, 1911-12, pp. 545-557. 1911.
181. The four-terminal conductor and the Thomson bridge. By Frank Wenner. Bulletin, vol. 8, 1911-12, pp. 559-610. 1912.
182. Standardization of potassium permanganate solution by sodium oxalate. By R. S. McBride. Bulletin, vol. 8, 1911-12, pp. 611-642. 1912.
183. Benzoic acid as an acidimetric standard. By George W. Morey. Bulletin, vol. 8, 1911-12, pp. 643-650. 1912.
184. A tubular electro-dynamometer for heavy currents. By P. G. Agnew. Bulletin, vol. 8, 1911-12, pp. 651-658. 1912.
185. Thermometric lag. By D. R. Harper, 3d. Bulletin, vol. 8, 1911-12, pp. 659-714. 1912.
186. Determination of manganese as sulphate and by the sodium bismuthate method. By William Blum. Bulletin, vol. 8, 1911-12, pp. 715-740. 1912.
187. A new precision colorimeter. By P. G. Nutting. Bulletin, vol. 9, 1913, pp. 1-5. 1912.
188. Instruments and methods used in radiometry—II. By W. W. Coblentz. Bulletin, vol. 9, 1913, pp. 7-63. 1912.
189. Antenna resistance. By L. W. Austin. Bulletin, vol. 9, 1913, pp. 65-72. 1912.
190. Energy losses in some condensers used in high-frequency circuits. By L. W. Austin. Bulletin, vol. 9, 1913, pp. 73-80. 1912.
191. Selective radiation from various substances, IV. By W. W. Coblentz. Bulletin, vol. 9, 1913, pp. 81-117. 1912.
192. On a modified form of stability test for smokeless powder and similar materials. By H. C. P. Weber. Bulletin, vol. 9, 1913, pp. 119-129. 1912.
193. Atomic weight of bromide. By H. C. P. Weber. Bulletin, vol. 9, 1913, pp. 131-150. 1912.
194. The silver voltameter—Part I. By E. B. Rosa and G. W. Vinal. Bulletin, vol. 9, 1913, pp. 151-207. 1912.
195. Same—Part II. By E. B. Rosa, G. W. Vinal, and A. S. McDaniel. Bulletin, vol. 9, 1913, pp. 209-282. 1913.
196. The diffuse reflecting power of various substances. By W. W. Coblentz. Bulletin, vol. 9, 1913, pp. 283-325. 1913.
197. Density and thermal expansion of ethyl alcohol and its mixtures with water. By N. S. Osborne, E. C. McKelvy, and H. W. Bearce. Bulletin, vol. 9, 1913, pp. 327-374. 1913.
198. A micro-pyrometer. By George K. Burgess. Bulletin, vol. 9, 1913, pp. 475-478. 1913.
199. A simplified formula for the change in order of interference due to changes in temperature and pressure of air. By Irwin G. Priest. Bulletin, vol. 9, 1913, pp. 479-481. 1913.

TECHNOLOGIC PAPERS.

2. The strength of reenforced concrete beams—Results of tests of 333 beams (1st series). By R. L. Humphrey and L. H. Losse. June 27, 1911. 200 pp., 11 pl., 11 charts, 33 text figs. 1912.
3. Tests of the absorptive and permeable properties of Portland cement mortars and concretes, together with tests of damp-proofing and waterproofing compounds and materials. By R. J. Wig and P. H. Bates. Aug. 22, 1911. 127 pp., 6 pls., 64 text figs. 1912.
4. The effect of added fatty and other oils upon the carbonization of mineral lubricating oils. By C. E. Waters. Aug. 24, 1911. 14 pp. 1911.
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6. The determination of chromium, and its separation from vanadium, in steels. By J. R. Cain. Nov. 1, 1911. 6 pp. 1911.
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8. A rapid method for the determination of vanadium in steels, ores, etc., based on its quantitative inclusion by the phosphomolybdate precipitate. By J. R. Cain and J. C. Hostetter. Oct. 26, 1911. 20 pp., 2 text figs. 1912.
9. Density and thermal expansion of linseed oil and turpentine. By Henry W. Bearce. 1912. 27 pp. 1912.
10. Melting points of fire bricks. By C. W. Kanolt. June 15, 1912. 17 pp., 2 pls., 3 text figs. 1912.
11. Comparison of five methods used to measure hardness. By Ralph P. Devries. July 22, 1912. 27 pp., 1 pl., 11 text figs. 1912.
12. Action of the salts in alkali water and sea water on cements. By P. H. Bates, A. J. Phillips, and R. J. Wig. Nov. 1, 1912. 157 pp., 8 pls., 45 text figs. 1913.
13. The evaporation test for mineral lubricating and transformer oils. By C. E. Waters. Jan. 1, 1913. 13 pp. 1913.
14. Legal specifications for illuminating gas. By E. B. Rosa and R. S. McBride. Jan. 10, 1913. (In press.)

BUREAU CIRCULARS.

2. Measurements of length and area, including thermal expansion. 4th ed., rev. and enl., May 1, 1912, superseding 3d ed. of Circular No. 2 on "Metal Tapes." 21 pp.
3. Verification of standards of mass. 2d ed., rev., Jan. 10, 1907. 7 pp.
4. Verification of standards of capacity. 2d ed., rev., Jan. 3, 1905. 2 pp.
5. Testing of clinical thermometers. 2d ed., rev., June 30, 1911. 14 pp.
6. Fees for electric, magnetic, and photometric testing. 4th ed., rev., July 1, 1911. 23 pp.
7. Pyrometer testing and heat measurements. 4th ed., rev., July 15, 1910. 16 pp.
8. Testing of thermometers. 2d ed., rev., June 30, 1911. 52 pp.
9. Testing of glass volumetric apparatus. 6th ed., rev., May 1, 1913. (In press.)
10. Legal weights (in pounds) per bushel of various commodities. 2d ed., rev., May 15, 1911. 10 pp.
11. The standardization of bomb calorimeters. May 15, 1911. 10 pp.
12. Verification of polariscopic apparatus. July 16, 1906. 7 pp.
13. Standard specifications for the purchase of incandescent electric lamps. 5th ed., rev., May 25, 1912. 16 pp.
14. Analyzed irons and steels—Methods of analysis. 3d ed., June 29, 1912. 12 pp.
15. The international unit of light. 3d ed., July 1, 1911. 7 pp.
16. The testing of hydrometers. 2d ed., rev., May 15, 1911. 14 pp.
17. Magnetic testing. 2d ed., rev., Dec. 1, 1910. 13 pp.

18. Standard gage for sheet and plate iron and steel. 2d ed., July 1, 1911. 4 pp.
19. Standard density and volumetric tables. 3d ed., Apr. 1, 1913. 44 pp.
20. Testing of electrical measuring instruments. Oct. 1, 1909. 81 pp.
21. Precision measurements of resistance and electromotive force. Mar. 1, 1910. 30 pp.
22. Standard specifications for transformers, oil-immersed, self-cooled, 60-cycle, 2,200 volts. 2d ed., May 15, 1911. 12 pp.
23. Standardization of electrical practice in mines. July 15, 1910. 98 pp.
24. Publications of the Bureau of Standards. 3d ed., rev., July 1, 1912. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstracts of each title.] 44 pp.
25. Standard analyzed samples. General information. 4th ed., rev., Nov. 1, 1912. 15 pp.
26. Analyzed iron and manganese ores. Methods of analysis. 3d ed., rev., May 15, 1913. (In press.)
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39. Specifications for and measurement of standard sieves. 1912. 14 pp.
40. Sodium oxalate as a standard in volumetric analysis. 2d ed., rev., May 15, 1913. (In press.)
41. Testing and properties of textile materials. Apr. 15, 1913. 16 pp.

MISCELLANEOUS.

- The international metric system. (Chart.)
 Table of equivalents of the United States customary and metric weights and measures. 4th ed., Jan. 31, 1913. 46 pp.
- The international metric system of weights and measures. 15 pp. 1906.
- State and national laws concerning the weights and measures of the United States. 2d ed. 564 pp. 1912.
- First conference on the weights and measures of the United States. 46 pp. 1905.
- Second annual conference on the weights and measures of the United States. 60 pp. 1906.
- Third annual conference on the weights and measures of the United States. 110 pp. 1910.
- Fourth annual conference on the weights and measures of the United States. 78 pp. 1910.
- Fifth annual conference on the weights and measures of the United States. 123 pp. 1911.
- Sixth annual conference on the weights and measures of the United States. 157 pp. 1912.
- Seventh annual conference on the weights and measures of the United States. 186 pp. 1912.

The National Bureau of Standards. [Description of the work of the Bureau.] 24 pp. 1911.

Report to the international committee on electrical units and standards of a special technical committee appointed to investigate and report on the concrete standards of the international electrical units and to recommend a value for the Weston normal cell. Jan. 1, 1912. 207 pp. 1912.

Same, Supplement. 34 pp. 1913.

STEAMBOAT-INSPECTION SERVICE.

Annual report of the Supervising Inspector General, Steamboat-Inspection Service, 1912. 78 pp. 1912.

List of officers of merchant steam, motor, and sail vessels licensed during the six months ended June 30, 1912, for a period of five years. 200 pp. 1912.

Laws governing the Steamboat-Inspection Service. Edition Apr. 15, 1913. 63 pp. 1913.

General rules and regulations prescribed by the Board of Supervising Inspectors, as amended January, 1912. Edition April 26, 1913. 145 pp., 7 text figs. 1913.

Pilot rules for certain inland waters of the Atlantic and Pacific coasts and of the coast of the Gulf of Mexico. Edition May 1, 1912. 30 pp., 5 text figs. 1912.

Pilot rules for the rivers whose waters flow into the Gulf of Mexico and their tributaries and the Red River of the North. Edition Aug. 1, 1911. 22 pp. 5 text figs. 1911.

Pilot rules for the Great Lakes and their connecting and tributary waters. Edition May 1, 1912. 20 pp., 5 text figs. 1912.



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PREFATORY NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications which are intended for free but judicious distribution. The object of this pamphlet is to acquaint the general public with the titles, sizes, and dates of issue of these publications so far as they are available for distribution at the present time.

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and can also, as a rule, be purchased at a small price by application to the "Superintendent of Documents, Office of the Public Printer, Washington, D. C."

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Coast Pilots, Tide Tables, and Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address, and stating specifically the publication or publications received by them. The Department should be notified promptly when publications are no longer desired.

PUBLICATIONS AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

Annual report of the Secretary of Commerce, 1913. 151 p. 1913. [There are also on hand a limited supply of the Secretary's report for each of the years 1903 to 1912, inclusive.]

Reports of the Department of Commerce [report of the Secretary and reports of bureaus consolidated], 1913. (In press.) [There are also on hand a limited supply of the consolidated reports of the Department for each of the years 1904, 1905, 1909, 1911, and 1912.]

Annual report of the Chief of Appointment Division, 1912. 38 p. 1912. [There are also available a few copies of the annual report for 1910 and 1911.]

Annual report of the Chief of the Division of Publications, 1913. 44 p. 1913. [There are also available a few copies of each of the annual reports from 1907 to 1912, inclusive.]

Fur seals of Alaska. Hearings before the Committee on Ways and Means, House of Representatives, 58th Congress, 2d session. (Mar. 9 and 10, 1904.) 76 p. 1904.

Report of the commission appointed by the President on September 16, 1903, to investigate the condition of the immigration station at Ellis Island. 38 p. 1904.

Departmental index; being an alphabetical arrangement of subjects in the statutes relating to the Executive Departments in general. 60 p. 1905.

Proceedings of the first annual meeting of the National Council of Commerce, Washington, D. C., December 10, 1908. 28 p. 1909.

Promotion of commerce in France. By Morris Jacobson, internal-commerce expert. 18 p. 1908.

Views of the Department of Commerce and Labor on the bill to regulate corporations engaged in interstate and foreign commerce. Letter from the Secretary of Commerce and Labor to the chairman of the Committee on Interstate and Foreign Commerce, House of Representatives, concerning House bill 35, 62d Congress, 1st session, 1911. 11 p. 1911.

Condensed history, duties, and practical operation of the Department of Commerce and its several bureaus and offices. July 1, 1913. 63 p. 1913.

Same, together with laws relating specifically thereto. July 1, 1913. 211 p. 1913.

List of publications of the Department of Commerce available for distribution. 10th edition, February, 1914. 69 p. 1914.

In addition to the foregoing, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

BUREAU OF THE CENSUS.

Requests for publications of the Bureau of the Census should be addressed to "The Director of the Census, Washington, D. C."

TENTH CENSUS (1880) REPORTS.

- Agriculture: Including cereal production; flour-milling processes; tobacco; meat production. 1149 p.
- Cotton production, Part I—Mississippi Valley and Southwestern States. 924 p.
- Same, Part II—Eastern, Gulf, Atlantic, and Pacific States. 848 p.
- Defective, dependent, and delinquent classes of the population. 638 p.
- Manufactures: Including power used; the factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass. 1248 p.
- Mining industries (exclusive of precious metals). 1064 p.
- Mining laws and regulations—United States, State, Territorial, and local. 716 p.
- Mortality and vital statistics, Part I—General death rate; sex in relation to deaths; relations of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p.
- Same, Part II—Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p.
- Newspaper and periodical press; Alaska; seal islands; shipbuilding. 1122 p.
- Oyster industry. 251 p.
- Petroleum; coke; building stones; the quarry industry. 872 p.
- Power and machinery employed in manufactures: Including steam and water power used in the manufacture of iron and steel; machine tools and wood-working machinery; steam pumps and pumping engines; wool and silk machinery; engines and boilers; marine engines and steam vessels; the ice industry. 660 p.
- Social statistics of cities, Part I—New England and Middle States. 924 p.
- Transportation, agencies of: Including steam railroads; steam navigation; canals; telegraphs and telephones; postal-telegraph service in foreign countries; express companies. 870 p.
- Valuation, taxation, and public indebtedness. 920 p.
- Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts. 792 p.
- Water power, Part I—The streams of eastern New England; the region tributary to Long Island Sound; the Hudson River Basin and Lake George outlet; the region tributary to Lake Ontario, and the New York State canals; the drainage basins of Lakes Huron and Erie, and Niagara Falls and River; the Middle Atlantic watershed; the Southern Atlantic watershed; the Eastern Gulf slope. 874 p.

ELEVENTH CENSUS (1890) REPORTS.

- Abstract. 312 p.
- Agriculture by irrigation. 336 p.
- Alaska, population and resources of. 294 p.
- Churches. 840 p.
- Compendium, Part I—Population; dwellings and families; Alaska. 1098 p.
- Same, Part II—Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1070 p.
- Same, Part III—Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians, taxed and not taxed. 1158 p.
- Eastern Cherokees of North Carolina. 24 p.
- Education. 141 p.

- The Five Civilized Tribes in the Indian Territory. 70 p.
- Insane, feeble-minded, deaf and dumb, and blind. 768 p.
- Insurance business, Part I—Fire, marine, and inland insurance. 1138 p.
- Same, Part II—Life insurance. 490 p.
- Manufacturing industries, Part I—Totals for States and industries; motive power used. 1002 p.
- Same, Part II—Statistics of cities. 827 p.
- Same, Part III—Selected industries: Including textiles; electrical industries in the State of New York; chemicals and allied products; glass; coke; refining of petroleum; glue; iron and steel; cast-iron pipe; wrought-iron and steel pipe; locomotives; clay products; shipbuilding; salt; forest industries; newspapers and periodicals; gas. 733 p.
- Mineral industries. 874 p.
- Occupations, census of 1890. 127 p.
- Population, Part II—Age; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1140 p.
- Real estate mortgages. 956 p.
- Textiles, census of 1890. 236 p.
- Transportation business, Part II—Transportation by water. 532 p.
- Vital and social statistics, Part I—Analysis and rate tables. 1077 p.
- Same, Part II—Cities of 100,000 population and upward. 1191 p.
- Same, Part III—Statistics of deaths. 1057 p.
- Same, Part IV—Statistics of deaths. 1039 p.
- Vital statistics of Boston and Philadelphia. 278 p.
- Vital statistics of the District of Columbia and Baltimore. 250 p.
- Vital statistics of New York and Brooklyn. 538 p.
- Wealth, debt, and taxation, Part I—Public debt. 902 p.
- Same, Part II—Valuation and taxation. 662 p.

TWELFTH CENSUS (1900) REPORTS.

- Abstract. 470 p.
- Agriculture, Part I—Farms, live stock, and animal products. 1003 p.
- Same, Part II—Crops and irrigation. 880 p.
- Employees and wages: 1890 and 1900. 1344 p.
- Manufactures, Part I—United States, by industries. 1039 p.
- Same, Part II—By States and Territories. 1111 p.
- Same, Part IV—Selected industries: Including iron and steel; tin and terne plate; lead, copper, and zinc, smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p.
- Manufactures—Textiles (monograph). 258 p.
- Occupations at the Twelfth Census. 1029 p.
- Population, Part I—By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship; and years in the United States. 1236 p.
- Revenue systems of State and local governments. 211 p.
- Supplementary analysis and derivative tables (based on statistics of the Twelfth Census). 1162 p.
- Wealth, debt, and taxation. 1246 p.
- Same, Abstract. 31 p.

THIRTEENTH CENSUS (1910) PUBLICATIONS.

All of the volumes of the final census reports, giving the results of the Thirteenth Decennial Census of 1910, have been issued except Volume IV, Occupation statistics, which will be completed at an early date.

The volumes numbered I to XI (comprising 10,964 pages), constituting the complete reports of the census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of the final reports, any individual who desires to receive any or all of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statement.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be as liberally met as the limited editions will permit.

FINAL REPORTS OF THE THIRTEENTH CENSUS.

Population:

Vol. I.—General report and analysis. 1369 p. (Each chapter of this volume was printed as a separate. The titles are listed below.)

Vol. II.—Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1160 p.

Vol. III.—Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1225 p.

Vol. IV.—Occupation statistics. (In course of preparation.)

Agriculture:

Vol. V.—General report and analysis. 927 p. (Each chapter of this volume was printed as a separate. The titles are listed below.)

Vol. VI.—Reports by States, with statistics for counties—Alabama to Montana. 977 p.

Vol. VII.—Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1013 p.

Manufactures:

Vol. VIII.—General report and analysis. 845 p.

Vol. IX.—Reports by States, with statistics for principal cities. 1404 p.

Vol. X.—Reports for principal industries. 975 p. (Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are given below.)

Mining:

Vol. XI.—Mines and quarries. 369 p.

REPRINTS OF CHAPTERS OF FINAL REPORTS.

Each of the chapters of Volume I of the final reports, which is the general report and analysis of the population statistics, was reprinted as a separate. The titles of the chapters are as follows:

I. Number of inhabitants. 104 p.

II. Color or race, nativity, and parentage. 122 p.

III. Sex distribution. 42 p.

IV. Age distribution. 218 p.

V. Marital condition. 182 p.

VI. State of birth. 92 p.

VII. Country of birth. 94 p.

VIII. Foreign white stock. 84 p.

- IX. Mother tongue. 58 p.
- X. Year of immigration. 16 p.
- XI. Voting and militia ages. 64 p.
- XII. School attendance. 88 p.
- XIII. Illiteracy. 80 p.
- XIV. Inability to speak English. 20 p.
- XV. Dwellings and families. 8 p.
- XVI. Ownership of homes. 74 p.

The titles of the chapters of Volume V, the general report and analysis of the statistics of agriculture, each of which was reprinted as a separate, are as follows:

- I. Farms and farm property. 70 p.
- II. Farm tenure. 60 p.
- III. Farm mortgages. 12 p.
- IV. Statistics of farms, classified by race, nativity, and tenure of farmers. 88 p.
- V. Size of farms. 70 p.
- VI. Live stock on farms and elsewhere. 146 p.
- VII. Live-stock products and domestic animals sold or slaughtered on farms. 58 p.
- VIII. Summary for all crops. 34 p.
- IX. Individual crops. 170 p.
- X. Agricultural statistics, by counties. 92 p.
- XI. Irrigation. 50 p.
- XII. Plantations in the South. 13 p.

ABSTRACT OF THE CENSUS WITH STATE SUPPLEMENTS.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagram and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in special editions for each of the several States, each edition containing a supplement giving the detailed statistics for counties, cities, and other civil divisions of the State to which it relates, designed to meet the needs of persons resident in that State or especially interested in it. The supplement contains also both tables and text. The information for each State printed with the Abstract is the matter which has appeared in the several series of State bulletins noted below.

As a compact reference work of general and local interest the Abstract is more convenient for most persons than the voluminous final reports.

The following list gives a summary of the chapters of the Abstract, by subjects:

Introduction.

Population:

- 1. Number and distribution of inhabitants.
- 2. Color or race, nativity, and parentage; sex; population 21 years of age and over; males of militia age.
- 3. Age and marital condition.
- 4. State of birth of native population.
- 5. Population of foreign birth and foreign parentage, by country of origin.
- 6. The foreign-born population—Date of immigration.
- 7. School attendance and illiteracy.
- 8. Dwellings and families.

Agriculture:

9. Farms and farm property.
10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms.
11. Live stock on farms and elsewhere.
12. Live-stock products, and domestic animals sold or slaughtered on farms.
13. Farm crops—Acreage, production, and value.
14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Mines and quarries.

STATE BULLETINS.

The State bulletins, of which a few copies are available for distribution, give for a particular State detailed results of the census in the main branches of population, agriculture, irrigation, and manufactures. These fall into several distinct series, as follows:

Population:

First series.—By counties and minor civil divisions, giving an account of the population of the State, the density of population, the urban and rural population, with tables showing the population in 1910 and 1900 of each county and for each minor civil division within the county.

Second series.—Gives composition and characteristics of the population, statistics of color, nativity, parentage, sex, citizenship, illiteracy, school attendance, and dwellings and families, with tables for all counties, and for cities having 2,500 or more inhabitants.

These bulletins were printed as Volumes II and III of the final reports.

Agriculture:

First series.—Number of farms, farm property, live stock, principal crops, and farm expenses.

Second series.—Reproduces the material for the first series, and gives additional information in regard to tenure, live-stock products, and minor crops, and presents a complete record for each State of all the agricultural data gathered at the census of 1910.

These bulletins were printed as Volumes VI and VII of the final reports.

Irrigation:

Statistics of irrigation, farms and acreage irrigated, irrigation works, cost of construction, cost of operation and maintenance, and crops irrigated. Issued for the following States: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

These bulletins were printed in Volumes VI and VII at connection with the agricultural statistics of the States to which they relate.

Manufactures:

Statistics for manufactures for the States and for principal cities and industries.

ABSTRACT BULLETINS.

Abstract bulletins give the general results of the census for the country as a whole by States, and, where applicable, by larger cities. All of the matter contained in these bulletins has been printed in greater detail in the Abstract or the volumes of the final reports. The following bulletins have been issued:

Population:

- Number and distribution of inhabitants. 55 p.
- Color or race, nativity, parentage, sex, and males of voting and militia ages. 44 p.
- School attendance and illiteracy. 39 p.
- Age and marital condition. 47 p.
- Country of birth. 32 p.
- State of birth. 18 p.

Agriculture:

Farms and farm property. 20 p.

General farm crops. 28 p.

Live stock on farms and elsewhere. 34 p.

Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 24 p.

Crops. 59 p.

Live-stock products. 16 p.

Irrigation:

Irrigation in the United States. 12 p.

Manufactures:

Manufactures for States, cities, and industries. 96 p.

Mines:

Mining industries in the United States. 24 p.

Coal mining. 55 p.

Iron mining. 25 p.

MANUFACTURES INDUSTRY BULLETINS.

All of the matter contained in these bulletins was reprinted without change in Volume X, Reports for principal industries, of the final volumes.

Agricultural implement industry. 12 p.

Automobiles, including bodies and parts. 17 p.

Bicycles, motorcycles, and parts. 6 p.

Blast-furnace, steel-works, and rolling-mill, wire, and tinplate and terne plate industries. 80 p.

Boots and shoes, including cut stock and findings. 20 p.

Butter, cheese, and condensed milk industry. 23 p.

Canning and preserving. 23 p.

Carriage and wagon industry. 17 p.

Chemicals. 22 p.

Clay-products industry. 26 p.

Coke. 10 p.

Cordage and twine and jute and linen goods. 11 p.

Cotton goods, including cotton small wares. 30 p.

Dyeing and finishing textiles. 10 p.

Dyestuffs and extracts. 7 p.

Electrical machinery, apparatus, and supplies. 17 p.

Essential oils. 6 p.

Explosives. 7 p.

Fertilizer industry. 13 p.

Flour-mill and gristmill industry. 24 p.

Fur-felt hat industry. 8 p.

Gas. 19 p.

Glass. 12 p.

Glucose and starch. 8 p.

Hosiery and knit-goods industry. 25 p.

Ice. 15 p.

Leather glove and mitten industry. 12 p.

Leather industry. 19 p.

Lumber industry. 24 p.

Musical instruments and phonographs and graphophones. 17 p.

Oilcloth and linoleum. 7 p.

Paint and varnish industry. 13 p.

Paper and wood-pulp industry. 16 p.
 Petroleum refining. 10 p.
 Printing and publishing industry. 41 p.
 Rice cleaning and polishing. 9 p.
 Salt. 7 p.
 Shipbuilding, including boat building. 19 p.
 Silk manufactures. 25 p.
 Slaughtering and meat-packing industry. 23 p.
 Soap. 11 p.
 Sugar. 15 p.
 Sulphuric, nitric, and mixed acids. 9 p.
 Steam laundries. 15 p.
 Turpentine and rosin industry. 18 p.
 Woolen, worsted, and felt goods, and wool hats, carpets and rugs, and shoddy. 48 p.

SPECIAL AND MISCELLANEOUS BULLETINS.

Besides abstract and State bulletins, which are designed for more general distribution, there have been issued special bulletins containing additional data and discussion regarding selected topics as follows. All of the matter contained in these bulletins appears in the final volumes to which the bulletin pertains.

Population of counties and equivalent subdivisions. 30 p.
 Total population and area of the United States, by States and Territories. 16 p.
 Population of cities of 2,500 inhabitants and over. 46 p.
 Center of population and median lines, continental United States. 8 p.
 Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p.
 Cities and their suburbs. 6 p.
 Population of incorporated places. 111 p.
 Population of New York City. 23 p.
 Statistics of the Indian population, number, tribes, sex, age, fecundity, and vitality. 25 p.
 Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p.
 Irrigation in Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas (exclusive of irrigation for rice). 28 p.
 Chemicals and allied products, 1909. 99 p.
 Textiles, 1909. 175 p.
 Metropolitan districts, 1909. 77 p.

REPORTS OF THE PERMANENT CENSUS.

Benevolent institutions: 1904, 335 p.; 1910, 411 p.
 The blind and the deaf: 1900. 274 p.
 Central electric light and power stations: 1902. 185 p.
 A century of population growth from the First Census of the United States to the Twelfth: 1790-1900. 313 p.
 Electrical industries: 1902. 822 p.
 Express business in the United States: 1907. 28 p.
 Fisheries: 1908—Persons employed, salaries, and wages; capital and equipment products; canning and preserving; exports and imports. 324 p.
 Insane and feeble-minded in hospitals and institutions: 1904. 238 p.
 Manufactures: 1905—Part I. United States by industries. 1030 p.
 Marriage and divorce: 1867-1906—Part I. 535 p.
 Same, Part II. General tables. 850 p.
 Mines and quarries: 1902. 1153 p.

Mortality: 1900-1904. 1003 p.

Same, 1905, 360 p.; 1906, 486 p.; 1907, 538 p.; 1909, 810 p.; 1910, 611 p.; 1911, 572 p.; 1912, 382 p.

Paupers in almshouses: 1904. 216 p.

Prisoners and juvenile delinquents in institutions: 1904. 295 p.

Religious bodies: 1906—Part I. Summary and general tables. 576 p.

Same, Part II. Separate denominations: History, description, and statistics. 670 p.

Statistics of cities having a population of over 30,000: 1905. 372 p.

Same, 1906, 358 p.; 1907, 548 p.; 1909, 279 p.; 1910, 308 p.; 1911, 401 p.

General statistics of cities: 1909. 197 p.

Telephones and telegraphs: 1902. 184 p.

Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p.

Transportation by water: 1906. 240 p.

BULLETINS OF THE PERMANENT CENSUS.

[To accommodate for alphabetical arrangement, the bulletin number is placed at conclusion of title.]

The following is a complete list of the bulletins of the permanent Census Bureau available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Many others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census, or of such important preliminary statistics as may be rapidly tabulated. Still others represent a condensation or summarization of material contained in the reports proper. These facts and figures are presented in this form in order that separate distribution may be made of material bearing on particular subjects, or for the purpose of more prompt presentation thereof.

MISCELLANEOUS.

Age statistics, a discussion of: 1880, 1890, 1900—13. 53 p.

Child labor in the United States: Twelfth Census, 1900—69. 200 p.

Commercial valuation of railway operating property in the United States: 1904—21. 88 p.

Cotton ginned in the United States: Crops of 1899 to 1902, inclusive—2. 46 p.

Cotton production: 1905^a—40. 72 p.

Same, 1906—76. 68 p.

Same, 1907—95. 58 p.

Same, 1908—100. 52 p.

Same, 1909—107. 64 p.

Same, 1910^a—111. 66 p.

Same, 1911—114. 61 p.

Same, 1912—116. 63 p.

Cotton supply and distribution for the year ending Aug. 31, 1905—25. 15 p.

Same, 1907—90. 26 p.

Same, 1908—97. 40 p.

Same, 1909—106. 32 p.

Same, 1910—110. 32 p.

Same, 1911—113. 31 p.

Same, 1912—115. 31 p.

Same, 1913—117. 40 p.

Earnings of wage earners (a study based on census of manufactures, 1905)—93. 179 p.

^a The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

- Electrical industries of Porto Rico: 1907—99. 29 p.
 Estimates of population: 1904, 1905, 1906—71. 28 p.
 Estimates of population of the larger cities of the United States in 1901, 1902, and 1903—7. 21 p.
 Executive civil service of the United States, statistics of employees: 1904—12. 239 p.
 Same, 1907—94. 164 p.
 Geographical distribution of population: 1880, 1890, and 1900—1. 24 p.
 Illiteracy in the United States (a study based on reports of the Twelfth and preceding censuses)—26. 54 p.
 Increase of population: 1890 to 1900, a discussion of—4. 63 p.
 Industrial districts: 1905. Manufactures and population—101. 81 p.
 Insane and feeble-minded in institutions: 1910—119. 99 p.
 Insular and municipal finances in Porto Rico for the fiscal year 1902—3—24. 31 p.
 Irrigation in the United States: 1902—16. 92 p.
 Marriage and divorce: 1887—1906—96. 71 p.
 Mineral industries of Porto Rico: 1902—6. 18 p.
 Mines and quarries: 1902—9. 59 p.
 Mortality statistics: 1908—104. 133 p.
 Same, 1910—109. 191 p.
 Same, 1911—112. 142 p.
 Municipal electric fire alarm and police patrol systems: 1902—11. 33 p.
 Paupers in almshouses: 1910—120. 99 p.
 Population of Oklahoma and Indian Territory: 1907—89. 43 p.
 Prisoners and juvenile delinquents: 1910—121. 130 p.
 Proportion of children in the United States (a study based on reports of the Twelfth and preceding censuses)—22. 27 p.
 Proportion of the sexes in the United States (a study based on reports of the Twelfth and preceding censuses)—14. 51 p.
 Religious bodies: 1906 (2d ed., rev. and enl.)—103. 149 p.
 Statistics of cities having a population of 8,000 to 25,000: 1903—45. 231 p.
 Statistics of cities having a population of over 25,000: 1902 and 1903—20. 481 p.
 Statistics of cities having a population of over 30,000: 1904—50. 209 p.
 Same, 1912—118. 83 p.
 Same, 1907, abstract of annual report—105. 94 p.
 Supervisors' districts for the Thirteenth Census: 1910—98. 19 p.
 Teachers, statistics of (a study based on reports of the Twelfth and preceding censuses)—23. 20 p.
 Telegraph systems: 1907—102. 47 p.
 Telephones and telegraphs: 1902—17. 49 p.
 Transportation by water: 1906. United States—91. 57 p.
 Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p.

MANUFACTURES, CENSUS OF 1905.

Special industries.

The statistics presented in these bulletins are reproduced in **Parts III. and IV.** of the Report on Manufactures, 1905.

- Agricultural implements—75. 31 p.
 Automobiles and bicycles and tricycles—66. 37 p.
 Boots and shoes, leather, and leather gloves and mittens—72. 81 p.
 Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p.
 Canning and preserving, rice cleaning and polishing, and the manufacture of beet sugar—61. 69 p.

Carriages and wagons, and the steam and street railroad car industry—84. 75 p.
Chemicals and allied products—92. 124 p.
Copper, lead, and zinc, smelting and refining—86. 32 p.
Coke—65. 57 p.
Electrical machinery, apparatus, and supplies—73. 73 p.
Glass and clay products—62. 107 p.
Iron and steel and tin and terne plate—78. 105 p.
Lumber and timber products—77. 69 p.
Metal-working machinery—67. 18 p.
Musical instruments, attachments, and materials—82. 34 p.
Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p.
Petroleum refining—70. 57 p.
Power employed in manufactures—88. 27 p.
Printing and publishing—79. 133 p.
Shipbuilding—81. 29 p.
Tobacco—87. 33 p.

States and Territories.

The statistics presented in these bulletins are reproduced in **Part II** of the Report on Manufactures, 1905.

United States—57. 93 p.
Alabama—43. 23 p.
Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p.
California, Oregon, and Washington—49. 73 p.
Colorado, Idaho, Nevada, and Utah—37. 49 p.
Connecticut—42. 39 p.
Delaware—31. 15 p.
Florida—33. 17 p.
Georgia—55. 23 p.
Illinois—52. 53 p.
Indiana—38. 37 p.
Iowa—32. 27 p.
Kansas—28. 25 p.
Kentucky and Tennessee—47. 45 p.
Louisiana, Mississippi, and Texas—48. 57 p.
Maine—51. 25 p.
Maryland and District of Columbia—27. 33 p.
Massachusetts—53. 79 p.
Michigan (statistics for 1904)—18. 35 p.
Minnesota—46. 27 p.
Missouri and Arkansas—35. 47 p.
Montana, North Dakota, South Dakota, and Wyoming—34. 39 p.
Nebraska—29. 19 p.
New Hampshire and Vermont—41. 35 p.
New Jersey—54. 53 p.
New York—59. 101 p.
North Carolina and South Carolina—39. 37 p.
Ohio—68. 61 p.
Pennsylvania—60. 81 p.
Rhode Island—36. 29 p.
Virginia and West Virginia—44. 43 p.
Wisconsin—56. 39 p.

MISCELLANEOUS PERMANENT CENSUS PUBLICATIONS.

FOREST PRODUCTS.

These publications, of octavo size, issued yearly, are compiled in cooperation with the Forest Service, Department of Agriculture. Nos. 1 to 9, inclusive, are consolidated, without change, and issued as No. 10.

No. 1. Pulp-wood consumption: 1908. 12 p.

Same, 1909. 15 p.

Same, 1910. 10 p.

Same, 1911. 10 p.

No. 2. Lumber, lath, and shingles: 1908. 57 p.

Same, 1909. 63 p.

Same, 1910. 45 p.

Same, 1911. 45 p.

Same, 1912. 61 p.

No. 3. Slack cooperage stock: 1907. 11 p.

Same, 1909. 14 p.

Same, 1911. 8 p.

No. 4.^a Tanbark and tanning extracts: 1907. 10 p.

Same, 1908. 10 p.

Same, 1909. 14 p.

No. 4. Excelsior: 1911. 4 p.

No. 5. Veneers: 1907. 9 p.

Same, 1908. 13 p.

Same, 1909. 23 p.

Same, 1911. 8 p.

No. 6. Tight cooperage stock: 1907. 11 p.

Same, 1909. 14 p.

Same, 1911. 12 p.

No. 7. Wood distillation: 1907. 8 p.

Same, 1909. 11 p.

Same, 1910. 5 p.

Same, 1911. 6 p.

No. 8. Crossties purchased: 1907. 6 p.

Same, 1908. 8 p.

Same, 1909. 11 p.

Same, 1910. 8 p.

Same, 1911. 8 p.

No. 9. Poles purchased: 1907. 8 p.

Same, 1908. 8 p.

Same, 1909. 14 p.

Same, 1910. 7 p.

Same, 1911. 7 p.

No. 10.^a Forest products of the United States: 1908. 137 p.

Same, 1909. 178 p.

HEADS OF FAMILIES—FIRST CENSUS OF THE UNITED STATES: 1790.

These volumes, of quarto size, are for sale only, at the price of \$1 for each State; remittance should accompany the request, addressed to the Director of the Census.

^a These pamphlets were not issued in 1910 and 1911.

The First Census covered the present States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

PHILIPPINE ISLANDS, CENSUS OF 1908.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish; both editions are now exhausted. However, three bulletins, compiled from these reports, in English only, are available.

No. 1. Population of the Philippines. 100 p.

No. 2. Climate of the Philippines. 103 p.

No. 3. Volcanoes and seismic centers of the Philippine Archipelago. 80 p.

CUBA, CENSUS OF 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand in the United States for information regarding Cuba the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. Both volumes are of octavo size.

Cuba: Population, history, and resources: 1907 (compendium). 275 p.

VITAL STATISTICS.

International classification of causes of sickness and death: 1910. 146 p.

Legal importance of registration of births and deaths: 1908. 32 p.

Manual of international list of causes of death: 1911. 297 p.

Same, 1913. 307.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p.

Physicians' pocket reference to the international list of causes of death: 1910. 20 p.

Same, 1913. 28 p.

Practical registration methods: 1903. 29 p.

Tuberculosis in the United States: 1908. 67 p.

MISCELLANEOUS.

American census taking. 34 p.

Census Office and coordination of statistics. 43 p.

Collaboration in Federal and State statistical work. 73 p.

- Cooperation and unification in Federal and State statistical work. 48 p.
 History and growth of United States census: 1790-1890. 967 p.
 Report of the Director of the Census concerning the administration of the permanent bureau: 1903.
 Reports of the Director of the Census concerning the operations of the bureau for each fiscal year, 1905 to 1913.
 Standard form for reporting the financial statistics of public schools: 1911. 28 p.
 Uniform accounts as a basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p.
 Uniform accounts for systems of water supply: 1911. 44 p.
 Uniform municipal accounting: 1906. 121 p.

UNITED STATES COAST AND GEODETIC SURVEY.

The publications here listed are, with a few exceptions, arranged chronologically under their respective subjects. They can be obtained free of charge on application to the Chief of the Division of Publications, Department of Commerce, Washington, D. C., except Coast Pilots and Tide Tables, which are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing, and Chart Catalogues, which can be obtained free of charge on application to the Superintendent of the Coast and Geodetic Survey. The "List and Catalogue," which is a bibliography of the publications issued by this Bureau, may be consulted at all depositories of Government documents and many public libraries.

ANNUAL REPORTS.

- Report of the Superintendent of the Coast and Geodetic Survey, showing the progress of the work from July 1, 1912, to June 30, 1913. 102 p., 1 chart, 15 progress sketches. 1913. [There are also on hand a limited supply of the annual reports for each of the years 1851 to 1912.]

GEODESY.

- On the longitude between America and Europe from signals through the Atlantic cable. By B. A. Gould. Report for 1867, app. 6, p. 57-133.
 Reports of observations of the eclipse of the sun on August 7, 1869, made by parties of the United States Coast Survey, at the following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under the immediate direction of the Superintendent of the Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts and plates nos. 24, 25, and 26, 16 figs., 1 map, 2 diag.
 Errata in the Heis catalogue of stars. Report for 1873, app. 15, p. 175-180.
 Geographical positions of prominent places in the United States determined astronomically or geodetically by the United States Coast Survey. Report for 1874, app. 6, p. 62-65.
 Description of two forms of portable apparatus for the determination of personal equation, both relative and absolute, in observations of star transits. By J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig., 1 diag.
 Transatlantic longitudes. Final report on the determination of 1872, with a review of previous determinations. By J. E. Hilgard, assistant. Report for 1874, app. 18, p. 163-242.
 Field catalogue of 983 transit stars. Mean places for 1870.0. By G. Davidson, 83 p. 1874.

- Comparison of the methods of determining heights by means of levelling, vertical angles and barometric measures, from observations at Bodega Head and Ross Mountain, California.** By George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 figs. [Reprinted from report of 1871, app. 16.]^a
- Observations of atmospheric refraction—Contribution No. II.** Determination of several heights by the spirit-level, and measures of refraction by zenith-distances, also observations of the barometer at Ragged Mountain, Maine, in July, August, and September, 1874. By F. W. Perkins. Results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a
- On atmospheric refraction and adjustment of hypsometric measures—Contribution No. III.** Determination of the coefficient of refraction from zenith-distances observed in northern Georgia, by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of the method of least squares. Discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 figs.^a
- On the adaptation of triangulations to various conditions, depending on the configuration or orographic character of a country and on the degree of accuracy aimed at, with due consideration of the time and means available; also notes on the method of observing horizontal angles and directions in geodetic surveys.** By Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 figs. [Reprinted, with additions, from the report for 1871, app. 15.]
- The Pamlico-Chesapeake arc of the meridian and its combination with the Nantucket and the Peruvian arcs, for a determination of the figure of the earth from American measures.** By Charles A. Schott. Report for 1877, app. 6, p. 84-95.
- Description of an improved open vertical clamp for the telescopes of theodolites and meridian instruments, devised by George Davidson.** Report for 1877, app. 13, p. 132-133, 1 fig.
- Observations of the transit of Mercury, May 6, 1878, made at Summit station, Central Pacific Railroad.** By B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl., 1 sketch (27).
- Observations made at Washington, D. C., of the transit of Mercury, May 6, 1878.** By Charles A. Schott. Report for 1878, app. 7, p. 88-91.
- Adjustment of the primary triangulation between the Kent Island and Atlanta base-lines.** By Charles A. Schott. Report for 1878, app. 8, p. 92-120, 1 fig.
- Description of the Davidson meridian instrument.** By George Davidson. Report for 1879, app. 7, p. 103-109, 1 pl.
- Comparison of local deflections of the plumb-line in latitude, longitude, and azimuth, at stations of the oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids.** By C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.
- On instruments and methods used for precise levelling in the Coast and Geodetic Survey.** By O. H. Tittmann. Report for 1879, app. 15, p. 202-211, 1 fig., 1 pl., 1 diag.
- Observations to determine the refraction on lines passing near a surface of water, made at different elevations across the Potomac River.** By Andrew Braid. Report for 1879, app. 16, p. 212, 213.
- Report on the results of the longitudes of the Coast and Geodetic Survey determined up to the present time by means of the electric telegraph, together with their preliminary adjustment by the method of least squares.** By Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag.
- Explanation of apparatus for observation of telegraphic longitudes, with directions for its use.** By Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diags. (34 and 35).
- Report on geodesic night signals.** By Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig., 1 pl., 1 diag. (36 and 37).
- Report on geodesic levelling on the Mississippi River.** By Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diags. (sketches 45, 46, 47).

^aNo. 19 of 1876 is also bound with these appendixes, and appears under "Allied subjects."

- An account of a perfected form of the contact-slide base apparatus used in the Coast and Geodetic Survey. By J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. (sketch 82, figs. 1-8).
- Meteorological researches. By William Ferrel. Part III. Barometric hypsometry and reduction of the barometer to sea-level. Report for 1881, app. 10, p. 225-268, illus. 38.
- On a method of readily transferring the underground terminal marks of a base line. By O. H. Tittmann. Report for 1881, app. 18, p. 357, 358.
- On the flexure of pendulum supports. By C. S. Peirce. Report for 1881, app. 14, p. 359-441.
- On the deduction of the ellipticity of the earth from pendulum experiments. By C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.
- On a method of observing the coincidence of vibration of two pendulums. By C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 figs.
- On the value of gravity at Paris. By C. S. Peirce. Report for 1881, app. 17, p. 461-463.
- Description and construction of a new compensation primary base apparatus, including the determination of the length of the corresponding five-meter standard bars. By Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 figs., 2 diags.
- Report of the measurement of the Yolo base, Yolo County, Cal. By George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig., 1 sketch, 2 diags.
- The total solar eclipse of January 11, 1880, observed at Mount Santa Lucia, California. By George Davidson. Report for 1882, app. 20, p. 463-468, 2 diags.
- A new reduction of La Caille's observations, made at the Cape of Good Hope and at Paris between 1749 and 1757, and given in his "Astronomiæ Fundamenta," together with a comparison of the results with the Bradley-Bessel "Fundamenta;" also a catalogue of the places of 150 stars south of declination -30° , for the epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.
- Report of a conference on gravity determinations, held at Washington, D. C., in May, 1882. Report for 1882, app. 22, p. 503-516.
- Results for the length of the primary base-line in Yolo County, Cal., measured in 1881 by the party of George Davidson. Computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag.
- Results of observations for atmospheric refraction on the line Mount Diablo to Martinez, California, in connection with hypsometric measures by spirit level, the vertical circle and the barometer, made in March and April, 1880, by George Davidson. Reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag.
- Observations of the transit of Venus of December 6, 1882, at Washington, D. C., and at Tepusquet station, California, and at Lehman's ranch, Nevada. By C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.
- Field catalogue of 1,278 time and circumpolar stars. Mean places for 1885.0. By George Davidson. Report for 1883, app. 18, p. 383-471.
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., in 1879 and 1880. By Charles S. Peirce. Report for 1883, app. 19, p. 473-487.
- The run of the micrometer. By George Davidson. Report for 1884, app. 8, p. 377-385.
- Connection at Lake Ontario of the primary triangulation of the Coast and Geodetic Survey with that of the Lake survey. Observations by Charles O. Boutele. Discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map (illus. 20).
- Results of a trigonometrical determination of the heights of the stations forming the Davidson quadrilaterals. California. Observations by George Davidson, 1876-1882. Discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 figs.
- Longitudes deduced in the Coast and Geodetic Survey from determinations by means of the electric telegraph between the years 1846 and 1885. Second adjustment. By Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. (illus. 21).

Determinations of gravity with the Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal., and Washington, D. C. By Edwin Smith. Report for 1884, app. 14, p. 439-473.

On the use of the nobby for measuring the amplitude of swaying in a pendulum support. By C. S. Peirce. Report for 1884, app. 15, p. 475-482.

Note on the effect of the flexure of a pendulum upon its period of oscillation. By C. S. Peirce. Report for 1884, app. 16, p. 483-485.

Geographical positions of trigonometrical points in the States of Massachusetts and Rhode Island, determined by the United States Coast and Geodetic Survey between the years 1835 and 1885, and including those determined by the Borden survey in the years 1832 to 1838. By Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps (illus. 25, 26).

Results deduced from the geodetic connection of the Yolo base line with the primary triangulation of California. Also a reduction and adjustment of the Davidson quadrilaterals forming part of that triangulation. By Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.

Note on a device for abbreviating time reductions. By C. S. Peirce. Report for 1885, app. 15, p. 503-508.

On the influence of a nobby on the period of a pendulum. By C. S. Peirce. Report for 1885, app. 16, p. 509, 510.

On the effect of unequal temperature upon a reversible pendulum. By C. S. Peirce. Report for 1885, app. 17, p. 511, 512.

Fluctuations in the level of Lake Champlain and average height of its surface above the sea. A preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. (illus. 83).

Heights from spirit levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, in 1885-86. Report by Charles A. Schott. Report for 1887, app. 9, p. 185-205.

Report of the results of spirit leveling of precision about New York Bay and vicinity in 1886 and 1887. Observations by John B. Weir and J. E. McGrath. Discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map (illus. 48).

A bibliography of geodesy. By J. Howard Gore. Report for 1887, app. 16, p. 313-512.

Geographical positions of trigonometrical points in the State of Connecticut, determined by the U. S. Coast and Geodetic Survey between the years 1833 and 1880. Introduction and explanation of the tabular results. By Charles A. Schott. Report for 1888, app. 8, p. 313-403, map.

Heights from spirit leveling of precision between Mobile, Ala., and Okolona, Miss. Observations by J. B. Weir and J. E. McGrath, in 1884, 1886, and 1887. Report by Charles A. Schott. Report for 1888, app. 10, p. 409-426.

Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark. Report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453.

Heights from spirit leveling of precision between Arkansas City (on the Mississippi River) and Little Rock, Ark. Observations by J. E. McGrath, in 1887-88. Report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.

Differential method of computing the apparent places of stars for determinations of latitude. By E. D. Preston. Report for 1888, app. 13, p. 465-470.

Determinations of latitude and gravity for the Hawaiian government. By E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pls., 5 maps, 5 diags. Same, abstract. Bull., no. 11, p. 137-142, 1 fig. and 3 progress maps. 1880.

Report on the measurement of the Los Angeles base line, Los Angeles and Orange counties, California. By George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 8 diags.

Results of spirit leveling between tidewater at Annapolis, Md., and the Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins. Report by C. A. Schott. Report for 1889, app. 15, p. 461-466.

- Report on the resulting length and probable uncertainty of five principal base lines, measured with the compensation base apparatus, Bache-Würdemann, of the Coast Survey, between the years 1847 and 1855, inclusive. By Charles A. Schott. Report for 1880, app. 17, p. 470-491.
- Report of George Davidson, appointed by the President of the United States as the delegate to the Ninth Conference of the International Geodetic Association held at Paris, October, 1880. Report for 1880, app. 18, p. 493-503, 1 fig.
- Telegraphic determination of the longitude of Mount Hamilton, California. Field work by C. H. Sinclair and R. A. Marr. By Charles A. Schott. Bull., no. 13, p. 147-150. 1889.
- Description of two new transit instruments for longitude work. Constructed at the office of the Survey from designs by Edwin Smith. Bull., no. 16, p. 161-164, 1 fig., 1 diag. 1889.
- Determinations of gravity and the magnetic elements in connection with the U. S. scientific expedition to the west coast of Africa, 1889-1890. By E. D. Preston. Report for 1890, app. 12, p. 625-684, 16 figs., 10 pls., 1 map. [Includes observations on some islands in the North and South Atlantic ocean.]
- Same, abstract. Bull., no. 22, p. 219-223, 1 map, 7 pls. 1891.
- International Geodetic Association. Ninth Conference. Paris, October 3-12, 1889. Address of George Davidson, appointed as delegate to the association on the part of the United States. Report for 1890, app. 17, p. 721-733.
- Approximate times of culminations and elongations and the azimuths at elongation of Polaris for the years between 1889 and 1910. Submitted for publication as a bulletin November 21, 1889, by Charles A. Schott, and first published February 18, 1890. Report for 1891, pt. 2, app. 1, p. 7-13. [Reprinted from Bull., no. 14.]
- On the determination of an azimuth from micrometric observations of a close circumpolar star near elongation by means of a meridian transit, or by means of a theodolite with eyepiece micrometer. Submitted for publication as a bulletin December 12, 1890, and first published February 28, 1891. Report on method and example of computation by Charles A. Schott. Observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull., no. 21.]
- The transit of Mercury of May 9, 1881, as observed at Waikiki, Hawaiian Islands. By E. D. Preston. Report for 1891, pt. 2, app. 12, p. 475-477.
- Report of an expedition to Muir Glacier, Alaska, with determinations of latitude and the magnetic elements at Camp Muir, Glacier Bay. By Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- On the variation of latitude at Rockville, Md., as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association, by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 figs., 2 pls., 2 diags.
- Same, abstract. Bull., no. 25, p. 237-261, 2 diags. 1892.
- On the variation of latitude at Waikiki, near Honolulu, Hawaiian Islands, as determined from observations made in 1891 and 1892 in cooperation with the International Geodetic Association. By E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-150, 1 fig., 3 pls., 2 maps, 9 diags.
- On the results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Weir, Isaac Winston, P. A. Welker, and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 3, p. 161-203, 1 fig., 1 map.
- On the results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations made in 1890 and 1891 by Isaac Winston and F. A. Young. By Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224.
- On the measurement of the Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va. Report for 1892, pt. 2, app. 8, p. 329-503, 2 figs., 2 pls., 2 diags.
- Measure of the irregularity in one turn of the micrometer screw, and the relative value of each turn. By George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag.
- On the direct synthetical method of adjusting a triangulation. By Chas. H. Kummell. Report for 1892, pt. 2, app. 12, p. 535-552, 4 figs.

- On the resulting heights from geodetic leveling along the transcontinental line of levels between St. Louis and Jefferson City, Mo., executed in the years 1882 and 1883, by Andrew Braid, Gershom Bradford, and Isaac Winston. Discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig., 1 diag.
- On photography as applied to obtain an instantaneous record of lunar distances for determinations of longitude. By C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124.
- On the measurement of base line with steel tapes and with steel and brass wires. By Edw. Jilderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl., 1 diag.
- Proceedings of the Geodetic Conference, held at Washington, D. C., January 9 to February 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 4 figs., 7 pls., 1 map, 1 diag.
- The variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson between May, 1891, and August, 1892. Discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diags.
- Determinations of latitude, gravity, and the magnetic elements at stations in the Hawaiian Islands, including a result for the mean density of the earth. 1891, 1892. By E. D. Preston. Report for 1893, pt. 2, app. 12, p. 500-639, 12 figs., 8 pls., 2 maps, 6 diags.
- Results of observations for the variations of latitude at Waikiki, Hawaiian Islands, in cooperation with the work of the International Geodetic Association. By E. D. Preston. Bull., no. 27, p. 6-20, 2 diags. 1893.
- The constant of aberration as determined from a discussion of results for latitude at Waikiki, Hawaiian Islands. By E. D. Preston. Bull., no. 28, p. 21-34, 1 diag. 1893.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations. By G. R. Putnam; and a report on a geologic examination of some Coast and Geodetic Survey gravity stations. By G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 figs., 1 diag.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore. By E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig.
- Notes on some instruments recently made in the instrument division of the Coast and Geodetic Survey office. By Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pls.
- Geographic positions of trigonometric points in the State of Massachusetts, determined by the United States Coast and Geodetic Survey between the years 1843 and 1894, and including those determined by the Survey made by Borden in the years 1832 to 1838. (2d enl. and rev. ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 3 maps.
- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1880-1895. By C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined during 1880-1895. By C. A. Schott. Report for 1895, app. 3, p. 333-344.
- Graphic method of reducing stars from mean to apparent places. By E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diags.
- Description of leveling rods designed and constructed for use in geodetic-leveling operations. By Isaac Winston. Report for 1895, app. 8, p. 381, 382, 2 diags.
- Tables of azimuth and apparent altitude of Polaris at different hour angles. By G. R. Putnam. Report for 1895, app. 10, p. 393-398.
- The constant of aberration as determined from observations of latitude at San Francisco, Cal. Discussion by E. D. Preston. Observations by George Davidson. Bull., no. 32, p. 100-120. 1895.
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir between September and November, 1894, and by I. Winston between December, 1891, and February, 1892. By C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map.

- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations made by J. B. Weir in September and October, 1883, and September and October, 1884, with releveled by J. B. Weir between Richmond and Fredericksburg, Va., in May and June, 1886, and verification leveling between the two cities by I. Winston between April and June, 1896. By Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map.
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations made by J. B. Weir between July and September, 1883. Report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map.
- Resulting heights from spirit leveling between Jefferson City, Mo., and Holli-day, Kans., from observations by I. Winston and F. A. Young between April 21 and October 13, 1891. Report by C. A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig., 1 map.
- Field method of reducing portable transit time observations. By G. R. Putnam. Report for 1896, app. 9, p. 347-352.
- Determination of the constant of aberration from latitude observations with the zenith telescope at Honolulu, Hawaii, and San Francisco, Cal. By E. D. Preston. Report for 1896, app. 10, p. 353-371, 2 diags.
- The telegraphic longitude net of the United States and its connection with that of Europe, 1866-1896. By C. A. Schott. Report for 1897, app. 2, p. 197-261, 1 map.
- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by the party under the charge of Fremont Morse. By C. A. Schott. Report for 1897, app. 3, p. 263-268.
- Resulting heights from spirit leveling between Hollday and Salina, Kans., from observations by I. Winston between July 11 and October 28, 1895. By C. A. Schott. Report for 1897, app. 4, p. 269-283, 1 fig.
- Results of pendulum observations made in 1895 and 1896. By G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl., 1 map.
- The duplex base apparatus, and directions for its use in the field. By William Elmbeck. Report for 1897, app. 11, p. 737-752, 2 figs., 3 pls., 1 diag.
- Report on the measurement of the Salt Lake base line, in Utah. By William Elmbeck. Report for 1897, app. 12, p. 753-774, 1 fig., 6 pls., 1 map, 2 diags.
- Resulting heights from spirit leveling between Salina and Ellis, Kans., from observations made by I. Winston between July 2 and September 9, 1896. Report by C. A. Schott. Report for 1898, app. 1, p. 179-193, 1 fig.
- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston between June 11 and November 17, 1897. Report by C. A. Schott. Report for 1898, app. 2, p. 195-214, 2 figs.
- Resulting heights from spirit leveling between Hugo and Colorado Springs, Colo., from observations by I. Winston between April 20 and July 8, 1898. Report by C. A. Schott. Report for 1898, app. 3, p. 215-223, 1 fig.
- Inquiry into the relative value and need of a check of the Peruvian arc of 1736-1743. By C. A. Schott. Report for 1898, app. 4, p. 229-232.
- Physical observations made in connection with the Pribilof Islands survey of 1897. By G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig., 1 map.
- Report on the proceedings of the International Geodetic Association Conference at Stuttgart, Germany, October 3 to 12, 1898, and on geodetic operations in the United States. By E. D. Preston, delegate on the part of the United States. Report for 1898, app. 6, p. 243-260, 1 pl., 3 maps.
- The International Geodetic Association for the measurement of the earth. By Erasmus D. Preston, delegate on the part of the United States at the Twelfth General Conference. Report for 1899, app. 3, p. 241-269, 1 map.
- Determinations of gravity at the Polytechnic Institute, Worcester, Mass., and at Columbia University, New York City, with pendulum apparatus B. By Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 figs.
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston between May 12 and October 21, 1899. By Isaac Winston. Report for 1899, app. 5, p. 283-293, 1 fig.

- Resulting elevations from spirit leveling between Abilene, Kana., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton between May 8 and October 17, 1899. By B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig.
- Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson between June 3 and November 28, 1899. Report by O. W. Ferguson. Report for 1899, app. 7, p. 321-345, 1 fig.
- Precise leveling in the United States. By John F. Hayford. Report for 1899, app. 8, p. 347-386, 3 figs., 8 pls., 2 maps.
- The oblique boundary line between California and Nevada. By C. H. Sinclair. Report for 1900, app. 3, p. 255-484, 121 figs., 32 pls., 15 maps.
- The international latitude service at Gaithersburg, Md., and Ukiah, Cal., under the auspices of the International Geodetic Association, by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495-520, 1 fig., 2 pls., 2 maps, 2 diag.
- The determination of the mean value of one revolution of a micrometer screw and the progressive and periodic errors of the screw, from observations on a circumpolar star near its elongation. By Edwin Smith. Report for 1900, app. 8, p. 701-712.
- The transcontinental triangulation and the American arc of the parallel. By Chas. A. Schott. Special publication no. 4. 871 p., 2 figs., 17 pls., 4 maps, 33 diag. 1900.
- Table of coefficients for reducing inclined sights on vertical rod to horizontal distance. 4 p. 1900.
- Table of factors for computing differences in elevation (in meters). Table of corrections for curvature and refraction (in meters). 4 p. 1900.
- Table showing the height in meters corresponding to given angles of elevation and distances in meters. 4 p. 1900.
- On the measurement of nine base lines along the ninety-eighth meridian. By A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229-302.
- Extension of tables for the computation of geodetic positions to the Equator. By John F. Hayford. Report for 1901, app. 4, p. 303-339.
- Triangulation northward along the ninety-eighth meridian in Kansas and Nebraska. By John F. Hayford. Report for 1901, app. 6, p. 357-423.
- Triangulation in Kansas. By J. F. Hayford. Report for 1902, app. 3, p. 211-203, 5 sketch maps.
- A bibliography of geodesy. 2d ed. By J. H. Gore. Report for 1902, app. 8, p. 427-787.
- The eastern oblique arc of the United States and osculating spheroid. By Chas. A. Schott. Special publication no. 7. 394 p., 12 pls., 2 maps, 25 diag. 1902.
- Precise leveling in the United States, 1900-1903, with a readjustment of the level net and resulting elevations. By J. F. Hayford. Report for 1903, app. 3, p. 189-810, 2 views, 14 maps and sketches, 6 diag.
- Triangulation southward along the ninety-eighth meridian in 1902. By J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diag.
- Report on geodetic operations in the United States, 1900-1903, to the Fourteenth General Conference of the International Geodetic Association. By O. H. Tittmann. 28 p., 1 illus. 1903.
- Telegraphic longitudes. The Pacific arcs from San Francisco to Manila, 1903-4, completing the circuit of the earth. By Edwin Smith. Report for 1904, app. 4, p. 259-311, 13 illus.
- Precise leveling from Red Desert, Wyoming, to Owyhee, Idaho, 1903. By J. F. Hayford. Report for 1904, app. 6, p. 403-430.
- Precise leveling from Holland to New Braunfels, Texas, 1903. By J. F. Hayford. Report for 1904, app. 7, p. 433-450.
- A test of a transit micrometer. By John F. Hayford. Report for 1904, app. 8, p. 453-487, 2 illus.

- Triangulation in California, Part I.** By A. L. Baldwin. Report for 1904, app. 9, p. 491-764, 21 illus.
- Precise leveling from Red Desert, Wyoming, to Seattle, Washington, 1903-4.** By J. F. Hayford. Report for 1905, app. 4, p. 193-241.
- Triangulation along the ninety-eighth meridian, Lampasas to Seguin, Texas.** By J. F. Hayford. Report for 1905, app. 5, p. 243-282, 2 diags.
- The earth movements in the California earthquake of 1906.** By J. F. Hayford and A. L. Baldwin. Report for 1907, app. 3, p. 67-104, 2 maps in colors.
- Six primary bases measured with steel and invar tapes.** By O. B. French. Report for 1907, app. 4, p. 105-156.
- Precise leveling in the United States, 1903-1907, with a readjustment of the level net and resulting elevations.** By J. F. Hayford and L. Pike. 280 p., 1 map. 1909.
- The figure of the earth and isostasy from measurements in the United States.** By J. F. Hayford. 178 p., 6 maps, 11 diags. 1909.
- Geodetic operations in the United States, 1906-1909. A report to the Sixteenth General Conference of the International Geodetic Association.** By O. H. Tittmann and J. F. Hayford. 11 p. 1909.
- Supplementary investigation in 1909 of the figure of the earth and isostasy.** By J. F. Hayford. 80 p., 5 maps, 1 diag. 1910.
- Primary base lines at Stanton, Texas, and Deming, New Mexico.** By William Bowie. Report for 1910, app. 4, p. 143-171, 5 text figs.
- Triangulation in California, Part II.** By C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diags.
- Measurement of the flexure of pendulum supports with the interferometer.** By W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text figs.
- Formulae and tables for the computation of geodetic positions.** 5th edition, with a preface by C. R. Duvall. Special publication no. 8. 91 p. 1911.
- The effect of topography and isostatic compensation upon the intensity of gravity.** By John F. Hayford and William Bowie. Special publication no. 10. 132 p., 11 text figs., 9 charts (5 in pocket). 1912.
- Same, second paper.** By William Bowie. Special publication no. 12. 28 p., and 5 charts (in pocket). 1912.
- Triangulation along the ninety-eighth meridian, Nebraska to Canada, and connection with the Great Lakes.** By William Bowie. Report for 1911, app. 4, p. 161-342, 12 text figs.
- Same, Seguin to Point Isabel, Tex.** By A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text figs.
- Triangulation along the east coast of Florida, and on the Florida Keys.** By Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text figs.
- The Texas-California arc of primary triangulation.** Special publication no. 11. By William Bowie. 141 p., 8 illus., 10 figs. 1912.
- Geodetic operations in the United States, 1909-1912. A report to the Seventeenth General Conference of the International Geodetic Association.** By O. H. Tittmann. 18 p., 3 illus. 1912.
- The California-Washington arc of primary triangulation.** Special publication no. 13. 78 p., 7 maps. 1913.
- Determination of time, longitude, latitude, and azimuth.** Special publication no. 14. 177 p., 29 illus. 1913.
- Triangulation along the west coast of Florida.** Special publication no. 16. 147 p., 29 illus. 1913.
- Triangulation on the coast of Texas, from Sabine Pass to Corpus Christi Bay.** Special publication no. 17. 89 p., 15 illus. 1913.
- Fourth general adjustment of the precise level net in the United States.** Special publication no. 18. (In press.)

HYDROGRAPHY.

- Abstract of a paper read before the National Academy of Sciences, April 16, 1869, on the earthquake wave of August 14, 1868.** By J. E. Hilgard. Report for 1869, app. 13, p. 233, 234.

- Tidal researches. By William Ferrel. xiii+268 p., 13 figs. 1874.
- Report concerning the location of a quay or pier line in the vicinity of the United States navy yard at New York. By Henry Mitchell. Report for 1876, app. 11, p. 186-189, sketch 23.
- Description of an optical densimeter for ocean water. By J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig.
- Observations of the density of the waters of Chesapeake Bay and its principal estuaries. Report by Frederick Collins. Report for 1877, app. 14, p. 184-190, 2 figs.
- Physical hydrography of the Gulf of Maine. By Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig., 2 diags.
- Addendum to a report on a physical survey of the Delaware River. By Henry Mitchell. Report for 1879, app. 13, p. 199, 200, 1 diag.
- Comparison of the surveys of Delaware River in front of Philadelphia, 1843 and 1878. By H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diags.
- Report on comparison of surveys of Mississippi River in the vicinity of Cubitt's Gap. By H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag. (44).
- Report on the oyster beds of the James River, Virginia, and of Tangier and Pocomoke Sounds, Maryland and Virginia. By Francis Winslow. Report for 1881, app. 11, p. 269-353, 7 pls., 3 maps, 15 diags. (illus. 39-63).
- Report on a new rule for currents in Delaware Bay and River. By Henry Mitchell. Report for 1881, app. 18, p. 464-469, 1 fig.
- Comparison of the survey of Delaware River of 1819, between Pettys and Tinicum Islands, with more recent surveys. By Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diags. (sketches 41, 42, 43).
- Discussion of the tides of the Pacific coast of the United States. By William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diags. (sketches 45, 46, 47).
- Report on the Siemens electrical deep-sea thermometer. By J. R. Bartlett. (Accompanied by a description of the apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 figs., 2 diags. (Nos. 48, 49).
- The estuary of the Delaware. A report by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig., 1 diag. (No. 25). [See also Report for 1887, app. 13.]
- Physical hydrography of Delaware River and Bay. Comparison of recent with former surveys. By H. L. Marindin. Report for 1884, app. 12, p. 431-434, 2 diags. (sketches 22, 23).
- Description of a model of the depths of the sea in the Bay of North America and Gulf of Mexico. By J. E. Hilgard. Report for 1884, app. 17, p. 619-621, 1 map (illus. 25).
- Comparison of transverse sections in the Delaware River, between old navy yard and east end of Pettys Island, for the years 1819, 1843, and 1878. By Henry L. Marindin. Report for 1885, app. 12, p. 487, 488.
- On the harmonic analysis of the tides at Governors Island, New York Harbor. By William Ferrel. Report for 1885, app. 13, p. 489-493, 1 map (illus. 35).
- Report on deep-sea current work in the Gulf Stream. By J. E. Pillsbury. Report for 1885, app. 14, p. 495-501, 1 pl., 2 maps, 8 diags.
- A report on Monomoy and its shoals. By Henry Mitchell and Charles O. Boutelle. Report for 1886, app. 8, p. 255-261, 2 maps.
- Report of changes in the shore line and beaches of Marthas Vineyard as derived from comparisons of recent with former surveys. By Henry L. Whiting. Report for 1886, app. 9, p. 263-266, 1 map (illus. 21).
- A report on the delta of the Delaware. By Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. (illus. 22).
- A report of Gulf Stream explorations—Observations of currents, 1886. By J. E. Pillsbury. Report for 1886, app. 11, p. 281-290, 6 diags. (plates 23 to 28) presenting curves of observations of currents in the Gulf Stream during 1885 and 1886.
- On the movements of the sands at the eastern entrance to Vineyard Sound. By Henry Mitchell. Report for 1887, app. 6, p. 159-163, 1 map, 1 diag. (illus. 31, 32).
- Gulf Stream explorations—Observations of currents, 1887. By J. E. Pillsbury. Report for 1887, app. 8, p. 173-184, 2 maps, 7 diags. (illus. 34-42).

- Addendum to a report on the estuary of the Delaware.** By Henry Mitchell. Report for 1887, app. 13, p. 269-273. [Supplementary to report for 1883, app. 8, p. 239-245.]
- Report on the results of the physical surveys of New York Harbor.** By Henry Mitchell. Report for 1887, app. 15, p. 301-311, 1 fig., 6 diags. (illus. 44-49).
- Tide levels and flow of currents in New York Bay and Harbor.** By Henry L. Marindin. Report for 1888, app. 9, p. 405-408, 12 maps.
- Same, abstract.** Bull., no. 8, p. 7-12, 2 maps. 1888.
- Encroachment of the sea upon the coast of Cape Cod, Massachusetts, as shown by comparative surveys.** By Henry L. Marindin. Report for 1889, app. 12, p. 403-407, 1 map.
- Cross-sections of the shore of Cape Cod between Chatham and the Highland lighthouse.** By Henry L. Marindin. Report for 1889, app. 13, p. 409-457, 1 map.
- Recent changes in the south inlet into Edgartown Harbor, Marthas Vineyard.** By Henry L. Whiting. Report for 1889, app. 14, p. 459, 460, 1 map.
- Gulf Stream explorations—Observations of currents, 1888 and 1889.** By J. E. Pillsbury. Report for 1889, app. 16, p. 467-477, 8 maps, 12 diags.
- Currents of New York Bay and Harbor.** Compiled by B. A. Colonna from the notes of a physical survey by H. L. Marindin. Bull., no. 8, p. 41-43. 2d ed. 1889.
- Report on the sounds and estuaries of North Carolina with reference to oyster culture.** By Francis Winslow. Bull., no. 10, p. 51-136, 2 maps, 1 diag. 1889.
- A syphon tide-gauge for the open seacoast.** By Henry L. Marindin. Bull., no. 12, p. 143-146, 1 diag. 1889.
- On the use of observations of currents for prediction purposes.** By John F. Hayford. Report for 1890, app. 14, p. 691-703.
- On the reduction of hydrometer observations of salt-water densities.** Submitted for publication, February 18, 1890, by O. H. Tittmann. Revised for republication, February 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277.
- On the changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by a comparison of surveys made between 1835, 1867, and 1890.** By Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps.
- Cross-sections of the shore of Cape Cod, Massachusetts, between the Cape Cod and Long Point lighthouses.** By Henry L. Marindin. Report for 1891, pt. 2, app. 9, p. 289-341.
- On observations of currents with the direction-current meter in the Straits of Florida and in the Gulf of Mexico, 1891.** By E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl., 1 map, 7 diags.
- On the sounds and estuaries of Georgia with reference to oyster culture.** By J. C. Drake. Bull., no. 19, p. 179-209, 7 maps. 1891.
- Changes in the shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor, as shown by a comparison of surveys made between 1867 and 1890.** By H. L. Marindin. Bull., no. 24, p. 233-235. 1891.
- On the tides and currents in the harbor of Edgartown and in Katama Bay, Marthas Vineyard.** By Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diags.
- On the changes in the ocean shore lines of Nantucket Island, Massachusetts, from a comparison of surveys made in the years 1846 to 1887 and in 1891.** By Henry L. Marindin. Report for 1892, pt. 2, app. 6, p. 243-252, 1 map, 3 diags.
- Manual of tides. Part III. Some connections between harmonic and nonharmonic quantities, including applications to the reduction and prediction of tides.** By Rollin A. Harris. Report for 1894, pt. 2, app. 7, p. 125-262, 1 fig., 3 diags.
- Report on the changes in the depths on the bar at the entrance to Nantucket inner harbor, Massachusetts, between the years 1888 and 1893.** By H. L. Marindin. Report for 1895, app. 5, p. 347-354, 4 diags.

- Notes on the specific gravity of the waters of the Gulf of Mexico and the Gulf Stream.** By A. Lindenkohl. Report for 1895, app. 6, p. 355-369, 8 figs., 2 maps.
- Compilation of the most recent information relative to the harbors, anchorages, and dangers to navigation in the vicinity of Chatham and Peril Straits and Cooks Inlet, Alaska.** Arranged and compiled by Hugh Rodman. Report for 1896, app. 11, p. 373-393.
- Notes relating to self-registering tide gauges as used by the U. S. Coast and Geodetic Survey.** By J. F. Pratt. Report for 1897, app. 7, p. 313-318, 2 figs., 3 pls.
- Problems in physiography, concerning salinity and temperature of the Pacific Ocean.** By A. Lindenkohl. Report for 1898, app. 9, p. 463-473, 1 fig., 2 diagrs.
- Alaska. Hydrographic notes and sailing directions relating to portions of Alaska from Dixon Entrance to Yakutat Bay, including reconnaissance surveys of Cordova Bay, Bucarelli Bay, and Red Fish Bay.** 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 87, p. 110-118, 3 maps. 1899.
- Alaska. Hydrographic notes, sailing directions, and charts of surveys relating to the vicinity of Prince William Sound, Cook Inlet, Kodiak Island, and route from Unalaska to Chignik, through Unimak Pass and inside the Islands.** 1897. By J. F. Moser. Published through the courtesy of the Fish Commission. Bull., no. 38, p. 119-142, 6 maps. 1899.
- Alaska. Predicted times of slack water at Seymour Narrows, Discovery Passage, British Columbia, and at Sergius Narrows, Peril Strait, Alaska, from May to December, 1899.** Prepared from observations by E. K. Moore. Bull., no. 39, p. 143-150. 1899.
- Channel and harbor sweep.** Description by D. B. Wainwright. Report for 1903, app. 6, p. 1005-1010, 1 view.
- Manual of tides. Part IVb. Cotidal lines for the world.** By R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus.
- Long wire sweep.** By D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diagrs.
- Manual of tides. Part V. Currents, shallow-water tides, meteorological tides, and miscellaneous matters.** By R. A. Harris. Report for 1907, app. 6, p. 231-546. 22 diagrs., 7 charts.
- Long wire drag.** By N. H. Heck. Report for 1907, app. 7, p. 547-561.
- Survey of oyster bars, Anne Arundel County, Md. Description of boundaries and landmarks, and report of work of United States Coast and Geodetic Survey in cooperation with Maryland Shell Fish Commission.** By C. C. Yates. 106 p., 1 map. 1907.
- Survey of oyster bars, Somerset County, Md. Description of boundaries and landmarks, and report of work of the United States Coast and Geodetic Survey in cooperation with the United States Bureau of Fisheries and the Maryland Shell Fish Commission.** By C. C. Yates. 118 p., map. 1908.
- Same, Kent County, Md.** By C. C. Yates. 130 p., 1 map. 1912.
- Same, Queen Anne County, Md.** By C. C. Yates. 176 p., 1 map. 1912.
- Same, Dorchester County, Md.** By C. C. Yates. 180 p., 1 map. 1912.
- Same, Talbot County, Md.** By C. C. Yates. 250 p., 1 map. 1912.
- Summary of survey of oyster bars of Maryland, 1906-1912.** By C. C. Yates. 81 p., 2 maps. 1913.
- Description of long wire drag.** By N. H. Heck. 21 p., illus. 1910.
- Table of depths for channels and harbors, coasts of the United States, including Porto Rico, the Hawaiian Islands, and the Philippine Islands.** 175 p. 1918.
- Arctic tides.** By R. A. Harris. 103 p., 3 charts. 1911.

COAST PILOTS.

These are a series of volumes covering the continental coasts of the United States, Porto Rico, and a portion of Alaska, containing descriptions of the coast and harbors, sailing directions, and general

information, etc., for the use of mariners. They are corrected to date of issue as nearly as practicable, and supplements or new editions issued from time to time.

U. S. Coast Pilot: Atlantic coast. Parts I-II. From St. Croix to Cape Ann. 3d ed. 1911. 200 p., 2 maps. 50 cents.

Same, Part III. From Cape Ann to Point Judith. 3d. ed. 1912. 166 p., 2 maps, 1 illus. 50 cents.

Same, Part IV. From Point Judith to New York. 5th ed. 1909. 212 p., 3 maps, 1 illus. 50 cents.

Same, Part V. From New York to Chesapeake Bay entrance. 4th ed. 1909. 166 p., 4 maps, 1 illus. 50 cents.

Same, Part VI. Chesapeake Bay and tributaries. 4th ed. 1913. 162 p., 2 maps. 50 cents.

Same, Section D. Cape Henry to Key West. 1913. 231 p., 1 index map. 50 cents.

Same, Part VIII. Gulf of Mexico from Key West to the Rio Grande. 3d ed. 1908. 177 p., 4 illus. 50 cents.

U. S. Coast Pilot: Pacific coast. California, Oregon, and Washington. 2d ed. 1909. 251 p., 5 maps, 6 illus. 50 cents.

Same, Alaska. Part I. Dixon entrance to Yakutat Bay, with inland passage from Juan de Fuca Strait to Dixon entrance. 5th ed. 1908. 239 p., 9 pls., 5 charts. 50 cents.

U. S. Coast Pilot: West Indies. Porto Rico. 1906. 116 p., 1 map, 1 chart, 14 illus. 50 cents.

Alaska. Coast Pilot notes from Yakutat Bay to Cook Inlet and Shellkof Strait. 2d ed. 1910. 82 p.

Alaska. Coast Pilot notes on Bering Sea and the Arctic Ocean. 1908. 65 p. (Replaces Bulletin No. 40.) With supplement.

Hawaiian Islands Coast Pilot notes, Feb. 21, 1912. 57 p. 1912.

INLAND PILOTS.

Inside route pilot: New York to Key West. 2d ed. 1913. 66 p., 8 maps. 20 cents.

TIDE TABLES.

These are issued annually and contain predictions for the ports of the United States, including Porto Rico, Alaska, Hawaii, and the Philippine Islands, and also predictions for the principal foreign ports:

Tide tables for the world. 50 cents.

Tide tables for the Atlantic coast of the United States, including Canada and the West Indies. (Reprinted from the Tide tables for the world.) 15 cents.

Tide tables for the Pacific coast of the United States. (Reprinted from the Tide tables for the world.) 10 cents.

CHART CATALOGUES.

These contain lists of the latest coast pilots, tide tables, sailing directions, miscellaneous maps and plans, and charts issued by the Survey:

Catalogue of charts, coast pilots, and tide tables. 1912. 228 p., 86 text figs.

Catalogue of charts, sailing directions, and tide tables of the Philippine Islands. 1910. 54 p.

SAILING DIRECTIONS FOR THE PHILIPPINE ISLANDS.

These contain descriptions of the coasts and harbors of the Philippine Islands, together with sailing directions for those coasts and harbors:

Philippine Islands: Sailing directions. Section I. North and west coasts of Luzon and adjacent islands from Cape Engaño to Manila Bay. 4th ed. 1912. 132 p.

Philippine Islands: Sailing directions. Section II. Southwest and south coasts of Luzon and adjacent islands, between Manila and San Bernardino Strait. 4th ed. 1910. 102 p.

Same, Section III. Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.

Same, Section IV. Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 p.

NOTICE TO MARINERS.

These contain corrections that are to be applied to charts in order to keep them up to date. On January 1, 1908, the monthly notices to mariners, excepting those pertaining to the Philippine Islands, were, by direction of the Secretary of Commerce, consolidated with and made a part of the weekly Notice to Mariners issued by the Bureau of Lighthouses.

Notice to mariners. Philippine Islands. Issued monthly.

TOPOGRAPHY.

Type forms of topography, Columbia River. By E. Hergesheimer. Report for 1881, app. 7, p. 124-125, 7 figs., 1 map.

Proceedings of the Topographical Conference held at Washington, D. C., January 18 to March 7, 1892. Report for 1891, pt. 2, app. 16, p. 565-746, 25 figs., 2 pls., 1 map, 5 dlags.

Phototopography as practiced in Italy under the auspices of the Royal Military Geographical Institute, and as practiced in the Dominion of Canada under the auspices of the Department of the Interior. Also a short historical review of other photographic surveys and publications on the subject. By J. A. Flemer, assistant. Report for 1893, app. 3, p. 37-116.

Subdivision 1. List of original topographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2209, inclusive. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in the archives of the United States Coast and Geodetic Survey from January, 1834, to December 31, 1895. Nos. 1 to 2222, inclusive. Report for 1895, app. 11, p. 399-516.

A plane table manual. By D. B. Walnwright. Report for 1905, app. 7, p. 289-342, 27 dlags., 6 illus.

TERRESTRIAL MAGNETISM.

New discussion of the distribution of the magnetic declination on the coast of the Gulf of Mexico, with a chart of the isogonic curves for 1860. By Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^a

Development of Bessel's function for the effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.

Report on the results from the observations made at the magnetical observatory, on Capitol Hill, Washington, D. C., between 1867 and 1869. By Charles A. Schott. Report for 1869, app. 9, p. 199-207.

On a chart of the magnetic declination in the United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400, 401, 1 map.

- On the secular change of magnetic declination in the United States and at some foreign stations.** By Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.
- An inquiry into the variation of the compass off the Bahama Islands, at the time of the landfall of Columbus in 1492.** By Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map (sketch 84).
- Terrestrial magnetism.** Collection of results for declination, dip, and intensity, from observations made by the United States Coast and Geodetic Survey between 1833 and 1882, July. By Charles A. Schott. Report for 1881, app. 9, p. 159-224.
- On the secular variation of the magnetic declination in the United States and at some foreign stations.** By Charles A. Schott, assistant, Coast and Geodetic Survey. Report for 1882, app. 12, p. 211-276.
- Records and results of magnetic observations made at the charge of the "Bache fund" of the National Academy of Sciences from 1871 to 1876.** Under the direction of J. E. Hilgard, M. N. A. S., by H. W. Blair. Report for 1882, app. 14, p. 329-426.
- Account and results of magnetic observations made under the direction of the United States Coast and Geodetic Survey in cooperation with the United States Signal Office, at the United States polar station Ooglaanie, Point Barrow, Alaska; P. Henry Ray, commanding post.** Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 figs., 1 map (illus. 34).
- The geographical distribution and secular variation of the magnetic dip and intensity in the United States.** By Charles A. Schott. Report for 1885, app. 6, p. 120-274, 3 maps, 3 diags. (illus. 19-24).
- Collection of some magnetic variations off the coasts of California and Mexico, observed by Spanish navigators in the last quarter of the eighteenth century.** Communicated by George Davidson. Report for 1885, app. 7, p. 275-284.
- The magnetic work of the Greely arctic expedition, 1881-1884.** Abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210.
- The value of the "Arcano del mare" with reference to our knowledge of the magnetic declination in the earlier part of the seventeenth century.** By Charles A. Schott. Bull., no. 5, p. 25-28, 2 maps. 1888.
- Secular variation in the position of the agonic line of the North Atlantic and of America, between the epochs 1500 and 1900 A. D.** By Charles A. Schott. Bull., no. 6, p. 29-43, 3 maps. 1888.
- Historical review of the work of the Coast and Geodetic Survey in connection with terrestrial magnetism.** By Charles A. Schott. Bull., no. 7, p. 35-40, 4 maps. 1888.
- The distribution of the magnetic declination in the United States for the epoch 1890. (2d ed.)** By Charles A. Schott. Report for 1890, app. 11, p. 233-402, 3 maps, 1 diag.
- The magnetic observations made on Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730.** Bull., no. 20, p. 211-214. 1891.
- Results of the observations made at the U. S. Coast and Geodetic Survey magnetic observatory, at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, between the years 1882 and 1889. Part I. Results of the absolute measures of the direction and intensity of the earth's magnetic force.** Discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241.
- Same, Part II. Results of the differential measures of the magnetic declination.** Discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diags.
- Same, Part III. Results of the differential measures of the horizontal intensity.** Discussion and report by Charles A. Schott. Report for 1891, pt. 2, app. 4, p. 41-267, 10 diags.
- Same, Part IV. Results of the differential measures of the vertical force component, and of the variations of dip and total force.** Discussion and report by Charles A. Schott. Report for 1892, pt. 2, app. 7, p. 253-327, 2 diags.

The secular variation and annual change of the magnetic force at stations occupied by E. D. Preston, in connection with the U. S. eclipse expedition to the west coast of Africa, in 1889-90, in charge of D. P. Todd. Discussion and report by C. A. Schott. Submitted for publication March 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-39.

Same, abstract. Bull., no. 23, p. 225-232. (1891.)

On the magnetic observations made during Bering's first voyage to the coasts of Kamchatka and eastern Asia in the years 1725 to 1730. Submitted for publication as a bulletin, December 12, 1890, and first published February 26, 1891. Discussion by C. A. Schott. Report for 1891, pt. 2, app. 5, p. 269-273.

Results of magnetic observations at stations in Alaska and in the northwest territory of the Dominion of Canada. Observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, in the years 1889, 1890, and 1891. Discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.

Distribution of the magnetic declination in Alaska and adjacent waters for the year 1895, and construction of an isogonic chart for the same epoch. By C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.

Same, abstract. Bull., no. 34, p. 127-134. (1895.)

The secular variation in direction and intensity of the earth's magnetic force in the United States and in some adjacent foreign countries. By Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag.

The direction and intensity of the earth's magnetic force at San Francisco, Cal. By C. A. Schott. Bull., no. 33, p. 121-126. 1895.

Distribution of the magnetic declination in the United States for the epoch January 1, 1900. 3d ed. By Charles A. Schott. Report for 1896, app. 1, p. 147-235, 3 illus.

Distribution of the magnetic dip and the magnetic intensity in the United States for the epoch January 1, 1900. (2d ed.) By Charles A. Schott. Report for 1897, app. 1, p. 159-196, 3 maps.

Results of magnetic observations made in connection with the Greenland expedition of 1896, under charge of A. E. Burton. By G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag.

California, Bay of San Francisco. Magnetic ranges for determining the deviation of the compass, with short explanations of how to find the deviation and error of the compass. Arranged and compiled by J. C. Gilmore. Special publication no. 1. 7 p., 5 pl., 1 map. 1898.

General report upon the magnetic survey of North Carolina, with a brief historical sketch of the fundamental phenomena of the earth's magnetism. By James B. Baylor and Daniel L. Hazard, under the direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pl., 2 maps.

The magnetic work of the United States Coast and Geodetic Survey. By L. A. Bauer. Report for 1899, app. 10, p. 939-952.

Magnetic survey of North Carolina. Values of the magnetic declination at the county seats from 1750 to 1910. By D. L. Hazard. Bull., no. 41, p. 1-12. 1901.

The magnetic observatories of the United States Coast and Geodetic Survey in operation on July 1, 1902. By L. A. Bauer and J. A. Fleming. Report for 1902, app. 5, p. 301-331, 8 views, 3 maps and sketches, 5 diag.

Magnetic dip and intensity observations, January, 1897, to June 30, 1902. By D. L. Hazard. With preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views.

Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1902, and June 30, 1903. By L. A. Bauer. Report for 1903, app. 5, p. 931-1004.

Same, between July 1, 1904, and June 30, 1905. By L. A. Bauer. Report for 1905, app. 3, p. 105-192.

Same, between July 1, 1905, and June 30, 1906. By L. A. Bauer. Report for 1906, app. 3, p. 105-210, 1 illus.

- Distribution of the magnetic declination in the United States for January 1, 1905. By L. A. Bauer. Report for 1906, app. 4, p. 211-226, 1 map.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1906, and June 30, 1907. By R. L. Faris. Report for 1907, app. 5, p. 157-230.
- Same, between July 1, 1907, and June 30, 1908. By R. L. Faris. Report for 1908, app. 3, p. 69-165.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Cheltenham, Md., 1901-1904. By D. L. Hazard. 206 p., 56 illus. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 110 p., 29 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 93 p., 14 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 93 p., 22 figs. 1912.
- Same, 1911 and 1912. By D. L. Hazard. 98 p., 16 figs. 1913.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory near Honolulu, Hawaii, 1902-1904. By D. L. Hazard. 130 p., 1 map, 5 illus., 47 figs. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 112 p., 32 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 95 p., 11 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 95 p., 21 figs. 1912.
- Same, 1911 and 1912. By D. L. Hazard. 99 p., 12 figs. 1913.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Vieques, P. R., 1903-4. By D. L. Hazard. 70 p., 1 illus., 1 fig. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 110 p., 26 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 98 p., 21 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 94 p., 19 figs. 1912.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Sitka, Alaska, 1902-1904. By D. L. Hazard. 129 p., 1 map, 2 illus., 49 figs. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 115 p., 36 figs. 1910.
- Same, 1907 and 1908. By D. L. Hazard. 94 p., 23 figs. 1911.
- Same, 1909 and 1910. By D. L. Hazard. 96 p., 21 figs. 1912.
- Same, 1911 and 1912. By D. L. Hazard. 100 p., 17 figs. 1914.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory at Baldwin, Kans., 1901-1904. By D. L. Hazard. 138 p. 1909.
- Same, 1905 and 1906. By D. L. Hazard. 107 p., 26 figs. 1910.
- Same, 1907-1909. By D. L. Hazard. 114 p., 30 figs. 1911.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1908, and June 30, 1909. By R. L. Faris. Report for 1909, app. 3, p. 75-149.
- Same, between July 1, 1909, and June 30, 1910. By R. L. Faris. Report for 1910, app. 3, p. 73-141.
- Distribution of the magnetic declination in Alaska and adjacent regions for 1910. By R. L. Faris. Report for 1909, app. 4, p. 151-179, 4 figs., 4 text figs., 1 map in pocket.
- Principal facts of the earth's magnetism, and methods of determining the true meridian and the magnetic declination. (Reprinted from United States magnetic declination tables and isogonic charts for 1902.) 99 p., 1 map, 9 illus., 18 figs. 1913.
- Results of observations made at the Coast and Geodetic Survey magnetic observatory near Tucson, Ariz., 1909 and 1910. By D. L. Hazard. 59 p., 2 illus., 9 figs. 1913.
- Directions for magnetic measurements. By D. L. Hazard. 131 p., 10 text figs. 1911.
- Results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1910, and June 30, 1911. By R. L. Faris. Report for 1911, app. 3, p. 77-158.

Distribution of the magnetic declination in the United States for January 1, 1910, with isogonic chart and secular change tables. By R. L. Farls. Special publication no. 9. 14 p., 1 map. 1911.

Results of magnetic observations made by the United States Coast and Geodetic Survey between July 1, 1911, and December 31, 1912. Special publication no. 15. 102 p., 1 illus. 1913.

CHART CONSTRUCTION.

A quincuncial projection of the sphere. By C. S. Peirce. Report for 1877, app. 15, p. 191, 192, 1 map.

Notes on an original manuscript chart of Bering's expedition of 1725-1730, and on an original manuscript chart of his second expedition; together with a summary of a journal of the first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version. By William Healey Dall. Report for 1890, app. 19, p. 750-774, 2 maps.

Tables for a polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 3d ed. Special publication no. 5. 189 p., 1 chart. 1910. [Replaces app. 6, Report for 1884.]

Notes relative to the use of charts issued by the United States Coast and Geodetic Survey. By D. B. Wainwright. Special publication no. 6. 23 p., 1 fig., 1 pl., 6 diags. 1900.

ALLIED SUBJECTS.

General index of professional and scientific papers contained in the United States Coast Survey reports from 1851 to 1870. Report for 1871, app. 17, p. 193-209.

Report on the Nicaragua route for an interoceanic ship-canal, with a review of other proposed routes; made by Maximilian Von Sonnenstern to the minister of public works of Nicaragua. Translated for the U. S. Coast Survey. 22 p., 1 map. 1874.

Hypsometric formula based upon thermodynamic principles. By Chas. A. Schott. Report for 1876, app. 19, p. 338-390.*

A statement concerning the relation of the lawful standards of measure of the United States to those of Great Britain and France. By J. E. Hilgard. Report for 1876, app. 22, p. 402-406.

Report on the blue clay of the Mississippi River. By George Little. Report for 1880, app. 12, p. 145-171, sketch 48.

On the length of a nautical mile. By J. E. Hilgard. Report for 1881, app. 12, p. 354-356.

General properties of the equations of steady motion. By Thos. Craig. 26 p. 1881.

Tribute to the memory of Carlile P. Patterson, Superintendent of the Coast and Geodetic Survey from 1874 to 1881. Report for 1882, app. 24, p. 559-563.

Historical sketch of the U. S. Coast and Geodetic Survey. 8 p. 1884.

A plea for light on St. George's bank. By Henry Mitchell. Report for 1885, app. 11, p. 483-485.

An examination of some of the early voyages of discovery and exploration on the northwest coast of America from 1539 to 1603. By George Davidson. Report for 1886, app. 7, p. 155-253, 1 map (illus. 18).

Resources of and developments in Alaska. By George Davidson. Bull., no. 4, p. 13-24. 1888.

The relation between the metric standards of length of the U. S. Coast and Geodetic Survey and the U. S. Lake Survey. By C. A. Schott and O. H. Tittmann. Bull., no. 17, p. 165-173. 1889.

Report in relation to a portion of boundary line in dispute between the States of Maryland and Virginia. By Henry L. Whiting. Report for 1890, app. 11, p. 621-623.

On the relation of the yard to the meter. By O. H. Tittmann. Report for 1890, app. 16, p. 715-720. [This paper is a second edition of Bulletin 9, revised by the author, with statement of later comparisons, confirming his results.]

* Bound with appendixes 16, 17, and 18 of Report for 1876.

On the least square adjustment of weighings. A report prepared by direction of O. H. Tittmann, assistant, in charge of the Office of Standard Weights and Measures. By John F. Hayford. Report for 1892, app. 10, p. 515-527.

State laws authorizing officers of the U. S. Coast and Geodetic Survey to enter upon lands within State limits for the purposes of the Survey. Report for 1893, app. 1, p. 1-18.

Part I. A historical account of the boundary line between the States of Pennsylvania and Delaware. Part II. Detailed account of work on the Pennsylvania and Delaware boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig., 3 maps, 2 facsimis.

On the preparation and arrangement of the exhibit of the U. S. Coast and Geodetic Survey at the World's Columbian Exposition. By D. B. Wainwright. Report for 1893, app. 10, p. 425-439.

Units of electrical measure. Approved for publication December 27, 1893. Bull., no. 30, p. 99-104. 1894.

Legal units of electrical measure in the United States. Approved August 12, 1894. Bull., no. 31, p. 105-108. 1894.

General statement of the administration and work of the Coast and Geodetic Survey, with historical sketch from 1807 to 1893. Extract from report of Superintendent for the fiscal year 1897-98. By H. S. Pritchett. p. 21-28, 1 sketch. 1899.

Methods and results of the U. S. Coast and Geodetic Survey. [Leaflets printed for distribution at the Pan-American Exposition, Buffalo, N. Y.] Spanish edition. Issued separately. 1901.

List and catalogue of the publications issued by the U. S. Coast and Geodetic Survey. 1816-1902. Reprint, with Supplement, 1903-1908. By E. L. Burchard and R. M. Brown. 237, 44 p. 1908.

Same. Supplement to August, 1908, inclusive. 1908.

General instructions for the field work of the Coast and Geodetic Survey. 127 p. 1908.

Coast and Geodetic Survey in Alaska. 8 p. 1909.

The work of the Coast and Geodetic Survey. 2d ed. 47 p., 5 illus., 1 diag. 1909.

BUREAU OF CORPORATIONS.

Annual report of the Commissioner of Corporations for 1912. 24 p. 1913. [There is also on hand a limited supply of the annual reports of the Commissioner for each of the years 1905, 1906, and 1908-1911.]

Statement of the Commissioner of Corporations in answer to the allegations of the Standard Oil Company concerning its conviction at Chicago for accepting concessions on shipments over the Chicago and Alton Railroad. A discussion of the allegations in the pamphlet entitled "From the directors of the Standard Oil Company to its employees and stockholders," Dec. 30, 1907. 11 p. 1907.

Report of the Commissioner of Corporations on the petroleum industry. Part II. Prices and profits. Aug. 5, 1907. xlv+965 p., 3 maps, 71 diags. 1907.

Report of the Commissioner of Corporations on cotton exchanges. Part I. Methods of establishing grade differences for future contracts. May 4, 1908. xxi+369 p., 11 charts. 1908. [Also Summary.]

Same, Part II. Classification of cotton. Part III. Range of grades deliverable on contract. May 29, 1908. xvi+217 p., 1 illus. 1908. [Also Summary.]

Same, Part IV. Effect of future contracts on prices of cotton. Part V. Influence of producers' organizations on prices of cotton. Dec. 6, 1909. xxii+370 p., 24 charts. 1909. [Also Summary.]

Report of the Commissioner of Corporations on the tobacco industry. Part I. Position of the tobacco combination in the industry. Feb. 25, 1909. xxiii+489 p. 1909.

Same, Part II. Capitalization, investment, and earnings. Sept. 25, 1911. xxi+343 p. 1911.

- Taxation of corporations.** Part I. New England. Report on the system of taxing manufacturing, mercantile, transportation, and transmission corporations in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. May 17, 1909. xiii+156 p. 1909.
- Same, Part II.** Middle Atlantic States [New York, New Jersey, Pennsylvania, Delaware, Maryland, and District of Columbia]. June 6, 1910. xiii+115 p. 1910.
- Same, Part III.** Eastern Central States [Ohio, Indiana, Illinois, Michigan, and Wisconsin]. July 31, 1911. x+109 p. 1911.
- Same, Part IV.** Western Central States [Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Kansas, and Missouri]. Nov. 29, 1912. xiii+144 p. 1912.
- Special report on taxation,** supplementing previous reports on the taxation of corporations and covering the tax movement throughout the United States during 1912. Dec., 1913. xxxviii+440 p. 1914.
- Report of the Commissioner of Corporations on transportation by water in the United States.** Part I. General conditions of transportation by water. July 12, 1909. xviii+614 p., 1 map. 1909.
- Same, Part II.** Water-borne traffic. July 19, 1909. xxiv+402 p., 5 maps. 1909.
- Same, Part III.** Water terminals. Sept. 26, 1910. xxi+436 p., 18 maps. 1910.
- Report of the Commissioner of Corporations on the steel industry.** Part I. Organization, investment, profits, and position of United States Steel Corporation. July 1, 1911. xxiv+422 p. 1911. [Also Summary.]
- Report of the Commissioner of Corporations on cotton tare.** Sept. 3, 1912. x+53 p. 1912.
- Report of the Commissioner of Corporations on the lumber industry.** Part I. Standing timber. Jan. 20, 1913. xxiii+301 p., 2 maps. 1913.
- Report of the Commissioner of Corporations on the International Harvester Co.** Mar. 3, 1913. xxiii+384 p. 1913.

BUREAU OF FISHERIES.

The publications of the Bureau of Fisheries are now issued under a plan somewhat different from that formerly followed.

Bound volumes are no longer distributed. The Annual Report now consists of only a brief administrative report of the Commissioner, in pamphlet form. The papers formerly published as appendices to the report of the Commissioner, with it constituting the Annual Report volume, are now issued as small documents independent of any other publication. The papers composing the Bulletin, while still forming an annual volume with continuous pagination, are to be had only as separates, for which, however, there will be issued a general title-page, table of contents, and index at the end of each year.

In the following pages are listed, by serial numbers, all of the pamphlets now available.

Doc. No.

- 312.** Report upon ichthyological investigations in western Minnesota and eastern North Dakota. By Albert J. Woolman. Report for 1893, p. 343-373, pl. 19. 1896.
- 323.** The whitefishes of North America. By Barton W. Evermann and Hugh M. Smith. Report for 1894, p. 283-324, 1 text fig., pl. 11-28. 1896.
- 333.** Notes on Biscayne Bay, Florida, with reference to its adaptability as the site of a marine hatching and experiment station. By Hugh M. Smith. Report for 1895, p. 169-191. 1896.

Doc. No.

338. Report of the representatives of the U. S. Fish Commission at the Cotton States and International Exposition at Atlanta, Ga., in 1895. By W. de C. Ravenel. Report for 1896, p. 147-167, 3 text fig., pl. 11-21. 1897.
339. Notes on the extension of the recorded range of certain fishes of the United States coast. By Hugh M. Smith and William C. Kendall. Report for 1896, p. 169-176. 1897.
340. Notes on the food of four species of the cod family. By William C. Kendall. Report for 1896, p. 177-186. 1897.
343. Report of a survey of the oyster regions of St. Vincent Sound, Apalachicola Bay, and St. George Sound, Florida. By Franklin Swift. Report for 1896, p. 187-221, pl. 21. 1897.
346. Artificial propagation of the Atlantic salmon, rainbow trout, and brook trout. Manual of Fish Culture, p. 17-90, 14 text fig., pl. 11-29. 1900.
347. Artificial propagation of the black bass, crappies, and rock bass. Manual of Fish Culture, p. 147-163, 2 text fig., pl. 47-50. 1900.
349. Oysters and methods of oyster culture, with notes on clam culture. By H. F. Moore. Manual of Fish Culture, p. 263-340, 6 text fig., pl. i-xviii. 1900.
355. Report of observations made on board the U. S. Fish Commission steamer *Albatross* during the year ending June 30, 1896. Report for 1896, p. 357-386. 1897.
356. Observations upon the herring and herring fisheries of the northeast coast, with special reference to the vicinity of Passamaquoddy Bay. By H. F. Moore. Report for 1896, p. 387-442, pl. 60-62. 1897.
359. Notes on the halibut fishery of the northwest coast in 1896. By A. B. Alexander. Bulletin, vol. xvii, 1897, p. 141-144. 1898.
367. The utility of a biological station on the Florida coast in its relations to the commercial fisheries. By S. E. Meek. Bulletin, vol. xvii, 1897, p. 181-183. 1898.
379. The restricted inland range of shad due to artificial obstructions, and its effect upon natural reproduction. By Charles H. Stevenson. Bulletin, vol. xvii, 1897, p. 265-271. 1898.
393. Possibilities for an increased development of Florida's fishery resources. By John N. Cobb. Bulletin, vol. xvii, 1897, p. 349-351. 1898.
399. Report on mackerel investigations in 1897. By J. Percy Moore. Report for 1898, p. 1-22. 1899.
400. Reports on fishes obtained by the steamer *Albatross* in the vicinity of Santa Catalina Island and Monterey Bay. By Charles H. Gilbert. Report for 1898, p. 23-29, pl. 1 and 2. 1899.
401. Notes on the extent and condition of the alewife fisheries of the United States in 1896. By Hugh M. Smith. Report for 1898, p. 31-43. 1899.
403. The shad fisheries of the Atlantic coast of the United States. By Charles H. Stevenson. Report for 1898, p. 101-269. 1899.
404. List of fishes collected at the Revillagigedo Archipelago and neighboring islands. By David Starr Jordan and Richard Crittenden McGregor. Report for 1898, p. 273-284, pl. 4-7. 1899.
405. Report on investigations by the U. S. Fish Commission in Mississippi, Louisiana, and Texas in 1897. By Barton W. Evermann. Report for 1898, p. 285-310, pl. 8-36. 1899.
407. Report upon exhibit of the U. S. Fish Commission at the Tennessee Centennial Exposition in 1897. By W. de C. Ravenel. Report for 1898, p. 329-339, pl. 37. 1899.
409. List of fishes known to inhabit the waters of the District of Columbia and vicinity. By Hugh M. Smith and Barton A. Bean. Bulletin, vol. xviii, 1898, p. 179-187. 1899.
410. Notes on a collection of tide-pool fishes from Kadiak Island in Alaska. By Cloudsley Rutter. Bulletin, vol. xviii, 1898, p. 189-192. 1899.
411. The southern spring mackerel fishery of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 193-271. 1899.
412. Notice of a filefish new to the fauna of the United States. By Hugh M. Smith. Bulletin, vol. xviii, 1898, p. 273-278, pl. 64. 1899.
415. The peripheral nervous system of the bony fishes. By C. Judson Herrick. Bulletin, vol. xviii, 1898, p. 315-320, 1 text fig. 1899.

Doc. No.

416. The reappearance of the tilefish. By Hermon C. Bumpus. Bulletin, vol. xviii, 1898, p. 321-333. 1899.
422. An inquiry into the feasibility of introducing useful marine animals into the waters of Great Salt Lake. By H. F. Moore. Report for 1899, p. 229-250, pl. 7. 1899.
423. A review of the fisheries in the contiguous waters of the State of Washington and British Columbia. By Richard Rathbun. Report for 1899, p. 251-350, pl. 8-16. 1899.
425. Notes on the tide-pool fishes of California, with a description of four new species. By Arthur White Greeley. Bulletin, vol. xix, 1899, p. 7-20, 5 text fig. 1899.
426. The synaptas of the New England coast. By Hubert Lyman Clark. Bulletin, vol. xix, 1899, p. 21-31, pl. 10 and 11. 1899.
427. Descriptions of new genera and species of fishes from Porto Rico. By Barton Warren Evermann and Millard Caleb Marsh. Report for 1899, p. 351-362. 1899.
428. Descriptions of two new species of darters from Lake Maxinkuckee, Indiana. By Barton Warren Evermann. Report for 1899, p. 363-367. 1900.
429. The sturgeon fishery of Delaware River and Bay. By John N. Cobb. Report for 1899, p. 369-380, 2 text fig., pl. 18-21. 1900.
433. Descriptions of new species of fishes from the Hawaiian Islands belonging to the families of Labridæ and Scaridæ. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 45-65, 22 text fig. 1900.
434. Rotatoria of the United States, with especial reference to those of the Great Lakes. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 67-104, pl. 14-22. 1901.
435. A report of work on the Protozoa of Lake Erie, with especial reference to the laws of their movements. By H. S. Jennings. Bulletin, vol. xix, 1899, p. 105-114. 1901.
436. Notes on a collection of fishes from the rivers of Mexico, with description of 20 new species. By David Starr Jordan and John O. Snyder. Bulletin, vol. xix, 1899, p. 115-147, 22 text fig. 1900.
438. Some chemical changes in the developing fish egg. By P. A. Levene. Bulletin, vol. xix, 1899, p. 153-155. 1900.
439. The free-swimming copepods of the Woods Hole region. By William Morton Wheeler. Bulletin, vol. xix, 1899, p. 157-192, 30 text fig. 1900.
442. On the movements of certain lobsters liberated at Woods Hole. By Hermon C. Bumpus. Bulletin, vol. xix, 1899, p. 225-230, pl. 27. 1900.
444. Report of a dredging expedition off the southern coast of New England, September, 1899. By Freeland Howe, jr. Bulletin, vol. xix, 1899, p. 237-240. 1900.
446. Fish parasites collected at Woods Hole in 1898. By Edwin Linton. Bulletin, vol. xix, 1899, p. 267-304, pl. 33-43. 1900.
447. Biological notes, No. 1. Bulletin, vol. xix, 1899, p. 305-310. 1900.
448. The skeleton of the black bass. By R. W. Shufeldt. Bulletin, vol. xix, 1899, p. 311-320, 8 text fig., pl. 44. 1900.
449. The chemical composition of the subdermal connective tissue of the ocean sunfish. By Erik H. Green. Bulletin, vol. xix, 1899, p. 321-324. 1900.
452. A method of recording egg development, for use of fish-culturists. By Claudius Wallich. Report for 1900, p. 185-194, pl. 1. 1900.
455. The hydroids of the Woods Hole region. By C. C. Nutting. Bulletin, vol. xix, 1899, p. 325-386, 105 text fig. 1901.
456. Description of 15 new species of fishes from the Hawaiian Islands. By Oliver P. Jenkins. Bulletin, vol. xix, 1899, p. 387-404, 16 text fig. 1901.
458. The Mollusca of Porto Rico. By W. H. Dall and C. T. Simpson. Bulletin, vol. xx, 1900, pt. 1, p. 351-524, pl. 53-58. 1901.
459. The Brachyura and Macrura of Porto Rico. By Mary J. Rathbun. Bulletin, vol. xx, 1900, pt. 2, p. 1-127, 26 text fig., pl. 1 and 2. 1901.
460. The Anomuran collections made by the *Fish Hawk* expedition to Porto Rico. By J. E. Benedict. Bulletin, vol. xx, 1900, pt. 2, p. 129-148, pl. 3-6. 1901.

Doc. No.

461. The Stomatopoda of Porto Rico. By R. P. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 149-180, 13 text fig. 1901.
462. Report on Porto Rican Isopoda. By H. F. Moore. Bulletin, vol. xx, 1900, pt. 2, p. 161-176, pl. 7-11. 1901.
463. The Cirripedia collected near Porto Rico by the *Fish Hawk* expedition in 1898-99. By M. A. Bigelow. Bulletin, vol. xx, 1900, pt. 2, p. 177-180. 1901.
464. The polychæatus annelids of Porto Rico. By A. L. Treadwell. Bulletin, vol. xx, 1900, pt. 2, p. 181-210, 78 text fig. 1901.
465. Descriptions of two new leeches from Porto Rico. By J. Percy Moore. Bulletin, vol. xx, 1900, pt. 2, p. 211-222, pl. 12-13. 1901.
466. The nemerteans of Porto Rico. By Wesley R. Coe. Bulletin, vol. xx, 1900, pt. 2, p. 223-229. 1901.
467. The echinoderms of Porto Rico. By H. L. Clark. Bulletin, vol. xx, 1900, pt. 2, p. 231-263, pl. 14-17. 1901.
468. The Alcyonaria of Porto Rico. By C. W. Hargitt and C. G. Rogers. Bulletin, vol. xx, 1900, pt. 2, p. 265-287, pl. i-iv. 1901.
470. Actinaria from the vicinity of Porto Rico. By J. E. Duerden. Bulletin, vol. xx, 1900, pt. 2, p. 321-374, pl. A and i-xii. 1901.
471. The sponges collected in Porto Rico in 1899 by the U. S. Fish Commission steamer *Fish Hawk*. By H. V. Wilson. Bulletin, vol. xx, 1900, pt. 2, p. 375-411. 1901.
472. Dredging and other records of the U. S. Fish Commission steamer *Albatross*, with bibliography relative to the work of the vessel. Compiled by C. H. Townsend. Report for 1900, p. 387-562, pl. i-vii. 1901.
474. Biological notes, No. 2, from biological laboratory at Woods Hole. Bulletin, vol. xxi, 1901, p. 27-33. 1901.
475. Description of a new oceanic fish found off southern New England. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 35-36, 1 text fig. 1901.
476. The egg and development of the conger eel. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 37-44, 15 text fig. 1901.
477. Investigations into the history of the young squeteague. By Carl H. Eigenmann. Bulletin, vol. xxi, 1901, p. 45-51, 2 text fig. 1901.
478. A new isopod parasitic on the hermit crab. By Millet T. Thompson. Bulletin, vol. xxi, 1901, p. 53-56, pl. 9-10. 1901.
479. The plants of western Lake Erie, with observations on their distribution. By A. J. Pieters. Bulletin, vol. xxi, 1901, p. 57-79, 11 text fig., pl. 11-20. 1901.
480. The leptocephalus of the American eel and other American leptocephali. By C. H. Eigenmann and C. H. Kennedy. Bulletin, vol. xxi, 1901, p. 81-92, 14 text fig. 1901.
483. Notes on the fishes and mollusks of Lake Chautauqua, New York. By B. W. Evermann and E. L. Goldsborough. Report for 1901, p. 169-175. 1902.
484. The foraminifera of Porto Rico. By James M. Flint. Bulletin, vol. xx, pt. 2, 1900, p. 415-416. 1901.
485. Description of a new species of blenny from Japan. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 93-94, 1 text fig. 1902.
486. List of species of fishes known to occur in the Great Lakes or their connecting waters. By Barton Warren Evermann. Bulletin, vol. xxi, 1901, p. 95-96. 1902.
491. Notes on the tagging of four thousand adult cod at Woods Hole, Mass. By Hugh M. Smith. Report for 1901, p. 193-208. 1902.
492. Notes on the silversides of the genus *Menidia* of the east coast of the United States, with descriptions of two new subspecies. By W. C. Kendall. Report for 1901, p. 241-267, 6 text fig. 1902.
493. Note on the Scotch methods of smoking haddocks. By Hugh M. Smith. Report for 1901, p. 269-271. 1902.
494. Notes on the fishes of Lake Ontario. An annotated list of the fishes known to occur in Lake Champlain and its tributary waters. An annotated list of the fishes known to occur in the St. Lawrence River. By B. W. Evermann and W. C. Kendall. Report for 1901, p. 209-240. 1902.

Doc. No.

495. A report on fishes collected in Mexico and Central America, with notes and descriptions of five new species. By B. W. Evermann and E. L. Goldsborough. Bulletin, vol. xxi, 1901, p. 137-159, 8 text fig. 1902.
496. The organic constituents of the scales of fish. By E. H. Green and R. W. Tower. Bulletin, vol. xxi, 1901, p. 97-102. 1902.
497. The reactions of copepods to various stimuli and the bearing of this on daily depth migrations. By G. H. Parker. Bulletin, vol. xxi, 1901, p. 103-123. 1902.
498. The gas in the swim-bladder of fishes. Biliary calculi in the squeteague. By R. W. Tower. Bulletin, vol. xxi, 1901, p. 125-135, pl. xxi. 1902.
499. Description of a new species of shad (*Alosa ohlensis*), with notes on other food-fishes of the Ohio River. By Barton Warren Evermann. Report for 1901, p. 273-288. 1902.
500. The reproductive period in the lobster. By Francis H. Herrick. Bulletin, vol. xxi, 1901, p. 161-166, 5 text fig. 1902.
501. Notes on five food-fishes of Lake Buhl, Luzon, Philippine Islands. By Hugh M. Smith. Bulletin, vol. xxi, 1901, p. 167-171, pl. 22. 1902.
502. Marine protozoa from Woods Hole. By Gary N. Calkins. Bulletin, vol. xxi, 1901, p. 413-468, 69 text fig. 1902.
503. Notes on a species of barnacle (*Dichelaspis*) parasitic on the gills of edible crabs. By Robert E. Coker. Bulletin, vol. xxi, 1901, p. 399-412, 14 text fig. 1902.
507. Statistics of the fisheries of the Mississippi River and tributaries [for 1899]. Report for 1901, p. 659-740. 1902.
508. The Pan-American Exposition. Report of representative of the U. S. Fish Commission. By W. de C. Ravenel. Report for 1901, p. 289-351, pl. 6-20. 1902.
509. Notes on the boats, apparatus, and fishing methods employed by the natives of the South Sea Islands, and the results of fishing trials by the *Albatross*. By A. B. Alexander. Report for 1901, p. 741-829, 36 text fig., pl. 30-37. 1902.
511. Observations on the herring fisheries of England, Scotland, and Holland. By Hugh M. Smith. Bulletin, vol. xxii, 1902, p. 1-16, 1 text fig., pl. 1-2. 1903.
514. Hearing and allied senses in fishes. By G. H. Parker. Bulletin, vol. xxii, 1902, p. 45-64, pl. 9. 1903.
516. Notes on fishes from streams and lakes of northeastern California not tributary to the Sacramento Basin. By Cloudsley Rutter. Bulletin, vol. xxii, 1902, p. 145-148, 2 text fig. 1903.
518. The destruction of trout fry by hydra. By A. E. Beardsley. Bulletin, vol. xxii, p. 157-160. 1903.
519. Artificial propagation of the salmon of the Pacific coast. Manual of Fish Culture, p. 1-15, pl. 3-10. 1900.
520. Artificial propagation of the lake trout, grayling, and whitefish. Manual of Fish Culture, p. 91-120, pl. 30-39. 1900.
521. Artificial propagation of the shad and pike perch. Manual of Fish Culture, p. 121-145 and 165-179, 5 text fig., pl. 40-46 and 51-52. 1900.
522. Artificial propagation of marine species of fishes. Manual of Fish Culture, p. 195-238, pl. 54-63. 1900.
523. Descriptions of new genera and species of fishes from the Hawaiian Islands. By D. S. Jordan and B. W. Evermann. Bulletin, vol. xxii, 1902, p. 161-203. 1903.
525. Descriptions of a new genus and two new species of fishes from the Hawaiian Islands. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. xxii, 1902, p. 209-210. 1903.
526. The freshwater fishes of western Cuba. By Carl H. Eigenmann. Bulletin, vol. xxii, 1902, p. 211-236, 17 text fig., pl. 19-21. 1903.
529. The plankton algae of Lake Erie, with special reference to the Chlorophyceae. By Julia W. Snow. Bulletin, vol. xxii, 1902, p. 369-394, pl. i-iv. 1903.

Doc. No.

530. Description of a new species of darter from Tippecanoe Lake. By William J. Moenkhaus. Bulletin, vol. xxii, 1902, p. 395-398. 1903.
531. Notes on some freshwater fishes from Maine. By W. C. Kendall. Bulletin, vol. xxii, 1902, p. 353-368, 5 text fig. 1903.
533. A more complete description of *Bacterium truttæ*. By M. C. Marsh. Bulletin, vol. xxii, 1902, p. 411-416, pl. i-n. 1903.
534. Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. By Oliver P. Jenkins. Bulletin, vol. xxii, 1902, p. 417-511, 50 text fig., pl. i-iv. 1903.
539. The fisheries and fish trade of Porto Rico. By W. A. Wilcox. Report for 1902, p. 367-395. 1903.
541. Records of dredging and other collecting stations of the U. S. Fish Commission steamer *Albatross* in 1901 and 1902. Report for 1902, p. 397-432. 1903.
542. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer *Albatross*. By Harriet Richardson. Bulletin, vol. xxiii, 1903, pt. iii, p. 47-54. 1903.
544. Notes on a porpoise of the genus *Prodelphinus* from the Hawaiian Islands. By Frederick W. True. Bulletin, vol. xxiii, 1903, pt. 3, p. 41-45, pl. 1-2. 1903.
546. A catalogue of the shore fishes collected by the steamer *Albatross* about the Hawaiian Islands in 1902. By John Otterbein Snyder. Bulletin, vol. xxiii, 1902, p. 513-538, 52 text fig., pl. 1-13. 1904.
547. Notes on fishes collected in the Tortugas Archipelago. By David Starr Jordan. Bulletin, vol. xxii, 1902, p. 539-544, pl. 1-2. 1904.
549. Records of the dredging and other collecting and hydrographic stations of the U. S. Fisheries steamer *Albatross* in 1903. By Franklin Swift, compiled by Harry C. Fassett. Report for 1903, p. 123-134. 1904.
550. The echinoderms of the Woods Hole region. By Hubert Lyman Clark. Bulletin, vol. xxii, 1902, p. 545-576, pl. 1-14. 1904.
551. List of fishes dredged by the steamer *Albatross* off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridæ. By David Starr Jordan and Edwin Chapin Starks. Bulletin, vol. xxii, 1902, p. 577-630, pl. i-vii. 1904.
555. The commercial fisheries of the interior lakes and rivers of New York and Vermont. By John N. Cobb. Report for 1903, p. 225-246. 1904.
558. The medusæ of the Woods Hole region. By Charles W. Hargitt. Bulletin, vol. xxiv, 1904, p. 21-79, 30 text fig., pl. i-vii. 1904.
559. The osteology and immediate relations of the tilefish, *Lopholatilus chamaeleonticeps*. By Frederick A. Lucas. Bulletin, vol. xxiv, 1904, p. 81-86, 3 text fig. 1904.
560. The blood vascular system of the tilefish, *Lopholatilus chamaeleonticeps*. By C. F. Silvester. Bulletin, vol. xxiv, 1904, p. 87-114, 15 text fig., pl. i. 1904.
561. The fish parasites of the genus *Argulus* found in the Woods Hole region. By Charles B. Wilson. Bulletin for 1904, p. 115-131, 12 text fig. 1904.
562. The seaweed industries of Japan. The utilization of seaweeds in the United States. By Hugh M. Smith. Bulletin, vol. xxiv, 1904, p. 133-181, 31 text fig., pl. i-v. 1905.
563. The function of the lateral-line organs in fishes. By G. H. Parker. Bulletin, vol. xxiv, 1904, p. 183-207. 1905.
564. Isopods from the Alaska salmon investigation. By Harriet Richardson. Bulletin, vol. xxiv, 1904, p. 209-221, 10 text fig. 1905.
565. List of fishes collected in Boulder County, Colo., with description of a new species of *Leuciscus*. By Chancey Juday. Bulletin, vol. xxiv, 1904, p. 223-227, 1 text fig. 1905.
566. Biological relation of aquatic plants to the substratum. By Raymond H. Pond. Report for 1903, p. 483-526, 6 text fig. 1905.
567. State ichthyology of Massachusetts. By Theodore Gill. Report for 1904, p. 163-188. 1905.
568. The fish fauna of the Tortugas Archipelago. By David Starr Jordan and Joseph C. Thompson. Bulletin, vol. xxiv, 1904, p. 229-256, 6 text fig. 1905.

Doc. No.

569. Distribution of sewage in the waters of Narragansett Bay, with especial reference to the contamination of the oyster beds. By Caleb Allen Fuller. Report for 1904, p. 189-238, 2 text cuts. 1905.
570. Statistics of the fisheries of the South Atlantic States, 1902. Report for 1903, p. 343-410. 1905.
571. Statistics of the fisheries of the Gulf States, 1902. Report for 1903, p. 411-481. 1905.
572. New starfishes from deep water off California and Alaska. By Walter K. Fisher. Bulletin, vol. xxiv, 1904, p. 291-320. 1905.
574. Notes on the fishes of the streams flowing into San Francisco Bay, California. Critical notes on *Mylocheilus lateralis* and *Leuciscus caurinus*. By John O. Snyder. Report for 1904, p. 327-342, pl. i. 1905.
576. Note regarding the promotion of fishery trade between the United States and Japan. By Hugh M. Smith. Report for 1904, p. 239-243. 1905.
577. Commercial fisheries of the Hawaiian Islands, 1901. By John N. Cobb. Bulletin, vol. xxiii, 1903, pt. ii, p. 716-765, pl. 102-106. 1905.
578. The gas disease in fishes. By M. C. Marsh and F. P. Gorham. Report for 1904, p. 343-376, pl. i-iii. 1905.
579. A revision of the cave fishes of North America. By Ulysses O. Cox. Report for 1904, p. 377-393, 11 text fig., pl. i-vi. 1905.
582. The deep-sea fishes of the Hawaiian Islands. By Charles Henry Gilbert. Bulletin, vol. xxiii, 1903, pt. ii, p. 575-713, pl. 66-101. 1905.
583. Parasites of fishes of Beaufort, N. C. By Edwin Linton. Bulletin, vol. xxiv, 1904, p. 321-428, pl. i-xxxiv. 1905.
584. Physiological studies of the chinook salmon. By Charles Wilson Greene. Bulletin, vol. xxiv, 1904, p. 429-456, 6 text fig. 1905.
585. The Amphipoda of southern New England. By S. J. Holmes. Bulletin, vol. xxiv, 1904, p. 457-529, 65 text fig., pl. i-xiii. 1905.
586. Hydroids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By C. C. Nutting. Bulletin, vol. xxiii, 1903, pt. iii, p. 931-959, pl. i-xiii. 1905.
587. The Brachyura and Macrura of the Hawaiian Islands. By Mary J. Rathbun. Bulletin, vol. xxiii, 1903, pt. iii, p. 827-930, 79 text fig., pl. i-xxiv. 1906.
588. Schizopods of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. E. Ortmann. Bulletin, vol. xxiii, 1903, pt. iii, p. 961-973. 1905.
589. Nemertean of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By Wesley R. Coe. Bulletin, vol. xxiii, 1903, pt. iii, p. 975-986, 7 text fig., pl. i. 1905.
590. The commercial fisheries of the Hawaiian Islands in 1903. By John N. Cobb. Report for 1904, p. 433-511. 1905.
591. Notes on the food and parasites of some fresh-water fishes from the lakes at Madison, Wis. By W. S. Marshall and N. C. Gilbert. Report for 1904, p. 513-522, 1905.
594. Report of the Commissioner of Fisheries for the year ending June 30, 1905. 46 p. 1905.
596. The physiological effects upon fishes of changes in the density and salinity of water. By F. B. Sumner. Bulletin, vol. xxv, 1905, p. 53-108, 2 text fig. 1906.
597. Opisthobranchiate Mollusca from Monterey Bay, California, and vicinity. By F. M. MacFarland. Bulletin, vol. xxv, 1905, p. 109-151, pl. xviii-xxxi. 1906.
598. Hirudinea and Oligochaeta collected in the Great Lakes region. By J. P. Moore. Bulletin, vol. xxv, 1905, p. 153-171, 6 text fig., pl. xxxii. 1906.
599. The starfishes of the Hawaiian Islands. By W. K. Fisher. Bulletin, vol. xxiii, 1903, pt. iii, p. 987-1130, 2 text fig., pl. i-xxix. 1906.
600. Medusae of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. G. Mayer. Bulletin, vol. xxiii, 1903, pt. iii, p. 1131-1143, pl. i-iii. 1906.
601. Polychaetous annelids of the Hawaiian Islands collected by the steamer *Albatross* in 1902. By A. L. Treadwell. Bulletin, vol. xxiii, 1903, pt. iii, p. 1145-1181, 81 text fig. 1906.

Doc. No.

604. Dredging and hydrographic records of the U. S. Fisheries steamer *Albatross* for 1904 and 1905. 78 p. 1906.
605. The fishes of Samoa. Description of the species found in the archipelago, with a provisional list of fishes of Oceania. By David Starr Jordan and Alvin Seale. Bulletin, vol. xxv, 1905, p. 173-455, 111 text fig., pl. xxxiii-lm. 1906.
614. List of publications of Bureau of Fisheries available for distribution.
624. The fishes of Alaska. By Barton W. Evermann and E. L. Goldsborough. Bulletin, vol. xxvi, 1906, p. 219-360, 144 text fig., pl. xiv-xxii. 1907.
625. The physiology of the digestive tract of elasmobranchs. By M. X. Sullivan. Bulletin, vol. xxvii, 1907, p. 1-27, pl. i. 1907.
634. Devils Lake, North Dakota: A study of physical and biological conditions, with a view to the acclimatization of fish. By Thomas F. B. Pope. 22 p. pl. i-iii, 1 map. 1908.
636. Relationships of the fish fauna of the lakes of southeastern Oregon. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 69-102, 4 text fig., 1 map. 1908.
637. The fishes of the Sacramento-San Joaquin Basin, with a study of their distribution and variation. By Cloudsley Rutter. Bulletin, vol. xxvii, 1907, p. 108-162, 4 text fig., pl. vi. 1908.
638. The fishes of the coastal streams of Oregon and northern California. By John O. Snyder. Bulletin, vol. xxvii, 1907, p. 153-189, text fig. 1-5, 1 map. 1908.
640. Fishes from islands of the Philippine Archipelago. By David Starr Jordan and Robert E. Richardson. Bulletin, vol. xxvii, 1907, p. 233-287, text fig. 1-12. 1908.
642. Report of the Commissioner of Fisheries for the year ended June 30, 1908. 23 p. 1908.
645. The fisheries of Alaska in 1908. By M. C. Marsh and J. N. Cobb. 78 p. 1909.
646. International regulations of the fisheries on the high seas. By O. T. Olsen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 77-90. 1910.
647. International regulations of the fisheries on the high seas. By Charles E. Fryer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 91-102. 1910.
648. International regulations of the fisheries on the high seas. By Charles Hugh Stevenson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 103-180, 3 text fig. 1910.
649. Work of the International Fisheries Commission. By David Starr Jordan. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 181-186. 1910.
650. Some reasons for failure of fish-protective legislation, and some suggested remedies. By Oregon Milton Dennis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 187-192. 1910.
651. National aspects of angling and the protection of game fishes. By H. Wheeler Perce. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 193-198. 1910.
652. Sport fishing in California and Florida. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 199-207, pl. i-vi. 1910.
653. Lobsters and the lobster problem in Massachusetts. By George W. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 209-217. 1910.
654. A method of lobster culture. By A. D. Mend. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 219-240, 7 text fig., pl. vii-xi. 1910.
655. Sea mussels and dogfish as food. By Irving A. Field. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 241-257. 1910.

Doc. No.

656. On the wholesomeness of oysters as food. By Henry C. Rowe. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 259-267. 1910.
657. Effects of menhaden fishing upon the supply of menhaden and of the fishes that prey upon them. By Walter E. Hathaway. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 269-278. 1910.
658. Effects of the menhaden and mackerel fisheries upon the fish supply. By W. C. Kendall. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 279-293. 1910.
659. An improved and practical method of packing fish for transportation. By A. Sölling. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 295-301. 1910.
660. A process for preserving the pearl-oyster fisheries and for increasing the value of the yield of pearls. By John I. Solomon. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 303-313, 3 text fig. 1910.
661. Fur seals and the seal fisheries. By Charles H. Townsend. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 315-322. 1910.
662. Economic conditions of the fisheries in Italy. By Guido Rossati. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 323-332. 1910.
663. The fisheries and the guano industry of Peru. By Robert E. Coker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 333-365, pl. xii-xvii. 1910.
664. The fisheries of China. By W. W. Yen. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 367-373. 1910.
665. The fisheries of Japan considered from a geographical standpoint. By T. Kitahara. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 375-379. 1910.
666. The abuse of the scaphander in the sponge fisheries. By Ch. Flegel. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 513-543. 1910.
670. Sponge culture. By Jules Cotte. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 587-614. 1910.
671. Experiments in the artificial propagation of fresh-water mussels. By George Lefevre and W. C. Curtis. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 615-626. 1910.
672. A plan for promoting the whitefish production of the Great Lakes.* By S. W. Downing. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 627-633. 1910.
673. A plan for promoting the whitefish production of the Great Lakes.* By Frank N. Clark. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 635-642. 1910.
674. A plan for promoting the whitefish production of the Great Lakes.* By Paul Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 643-684, 5 text fig. 1910.
675. Fish-cultural practices in the Bureau of Fisheries. By John W. Titcomb. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 697-757, 13 text fig., pl. lxxvii-lxxxix. 1910.

* Documents 672, 673, and 674, with discussion occupying p. 685-695, are issued under one cover.

Doc. No.

676. A new principle of aquiculture and transportation of live fishes. By A. D. Mead. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 759-780, 1 text fig., pl. xo-c. 1910.
677. A method of cultivating rainbow trout and other Salmonidæ. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 781-787, 3 text fig. 1910.
678. Possible expansion of shad-hatchery work. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, p. 789-793. 1910.
679. The comparative value of foods for rainbow trout and other salmonoids. By Charles L. Paige. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 795-798. 1910.
680. Apparatus and methods used at the marine fish hatchery at Flödevig, Norway. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 799-809, 8 text fig., pl. ci. 1910.
681. The utility of sea-fish hatchling. By G. M. Dannevig. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 811-816. 1910.
682. Propagation and protection of the Rhine salmon. By P. P. C. Hoek. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 817-829, 2 text fig. 1910.
683. Fishes in their relation to the mosquito problem. By William P. Seal. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 831-833. 1910.
684. Foods for young salmonoid fishes. By Charles G. Atkins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 839-851. 1910.
685. Fresh-water shrimp, a natural fish food. By S. G. Worth. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 853-855. 1910.
686. The cultivation of the turbot. By R. Anthony. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 859-870, 2 text fig., pl. cii-ciii. 1910.
687. The treatment of fish-cultural waters for the removal of algae. By M. C. Marsh and R. K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 871-890, 2 text fig. 1910.
688. Notes on the dissolved content of water in its effect upon fishes. By M. C. Marsh. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 891-906. 1910.
689. Causes of diseases in young salmonoids. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 907-916. 1910.
690. Radical prevention of Costia necatrix in salmonoid fry. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 917-928. 1910.
691. Treatment of fungus on fishes in captivity. By L. B. Spencer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 929-932. 1910.
692. Methods of combating fungus disease on fishes in captivity. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 933-936. 1910.

Doc. No.

693. A new method of combating fungus on fishes in captivity. By Paul Zirzow. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 937-940. 1910.
694. Experience in abating disease among brook trout. By Albert Rosenberg. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 941-945. 1910.
695. American fishes in Italy. By G. Besana. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 947-954. 1910.
696. Acclimatization of American fishes in Argentina. By E. A. Tullian. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 955-965. 1910.
697. Introduction of American fishes into New Zealand. By L. F. Ayson. With discussion. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 967-975. 1910.
698. Naturalization of American fishes in Austrian waters. By Franz von Pirko. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 977-982. 1910.
699. Causes of degeneration of American trouts in Austria. By Johann Franke. (Translation from the German. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 983-989. 1910.
700. New and improved devices for fish culturists. By Alfred E. Fuller. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 991-1000, pl. civ-cvi. 1910.
701. A device for counting young fish. By Robert K. Robinson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1001-1004, 1 text fig. 1910.
702. A method of transporting live fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1005-1007. 1910.
703. A method of measuring fish eggs. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1009-1014, 2 text fig. 1910.
704. An improvement in hatching and rearing boxes; with notes on continuous feeding of the fry of Salmonidae. By G. E. Simms. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1015-1023, 3 text fig. 1910.
705. Devices for use in fish hatcheries and aquaria. By Eugene Vincent. (Translation from the French. Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1025-1035, 6 text fig. 1910.
706. New methods of transporting eggs and fish. By W. S. Kincaid. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1037-1039. 1910.
707. Fishways. By H. von Bayer. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1041-1057, 21 text fig. 1910.
708. A plea for observation of habits of fishes and against undue generalization. By Theodore Gill. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1059-1069. 1910.
709. The habits and life history of the toadfish (*Opsanus tau*). By E. W. Gudger. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1071-1110, 1 text fig., pl. ovii-cxiii. 1910.
710. Methods of studying the habits of fishes and recording their life histories; with an account of the breeding habits of the horned dace. By Jacob Reighard. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1111-1136, 5 text fig., pl. cxiv-cxx. 1910.

Doc. No.

711. A method of studying the life history of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1137-1141. 1910.
712. Effects of changes in the density of water upon the blood of fishes. By G. G. Scott. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1143-1150. 1910.
713. Internal parasites of the Sebago salmon. By Henry B. Ward. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1151-1194, pl. cxxi. 1910.
714. Notes on the flesh parasites of marine food fishes. By Edwin Linton. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1195-1209. 1910.
715. Structure and functions of the ear of the squeteague. By G. H. Parker. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1211-1224, pl. cxxii. 1910.
716. An intensive study of the fauna and flora of a restricted area of sea bottom. By Francis B. Sumner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1225-1263, 27 text fig., 2 charts. 1910.
717. Development of sponges from tissue cells outside the body of the parent. By H. V. Wilson. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1265-1271. 1910.
718. Gases dissolved in the waters of Wisconsin lakes. By E. A. Birge. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1273-1294, 20 text fig. 1910.
719. Volumetric studies of the food and feeding of oysters. By H. F. Moore. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1295-1303, 6 text fig., pl. cxxv. 1910.
720. A plan for an educational exhibit of fishes. By Charles F. Holder. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1309-1314. 1910.
721. A plan for an educational exhibit of fishes. By Roy W. Miner. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1315-1346, 9 text fig., pl. cxxvi-cxli. 1910.
722. Outline for an educational exhibit of fishes. By Frederic A. Lucas. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1341-1351. 1910.
723. A method of preparing fish for museum and exhibition purposes. By Dwight Franklin. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1353-1355, pl. cxlii. 1910.
724. New methods of preparing fishes for museum exhibit. By J. D. Figgins. (Proceedings of the Fourth International Fishery Congress, Washington, 1908.) Bulletin, vol. xxviii, 1908, p. 1357-1363. 1910.
725. The U. S. Bureau of Fisheries: Its establishment, functions, organization, resources, operations, and achievements. By Hugh M. Smith. Second edition. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, 1908, p. 1365-1411, pl. cxliii-clvi. 1910.
726. Organization and seasonal business of the Fourth International Fishery Congress, Washington, U. S. A., 1908. (Proceedings of the Fourth International Fishery Congress, 1908.) Bulletin, vol. xxviii, p. 1-76. 1910.
728. Distribution of fish and fish eggs during the fiscal year 1909. 103 p. 1910.
729. Condition and extent of the oyster beds of James River, Virginia. By H. F. Moore. 83 p. 1910.
780. The fisheries of Alaska in 1909. By M. C. Marsh and John N. Cobb. 58 p. 1910.
781. Oyster-culture experiments and investigations in Louisiana. By H. F. Moore. 54 p., 8 pl. 1910.
782. Laws and regulations relative to fur-seal fishing. 7 p. 1910.

Doc. No.

735. The fur-seal fisheries of Alaska in 1909. By Walter I. Lembkey. 53 p. 1910.
736. Marine isopods collected in the Philippines by the U. S. fisheries steamer *Albatross* in 1907-8. By Harriet Richardson. 44 p., 39 text fig. 1910.
737. A review of the salmonoid fishes of the Great Lakes, with notes on the whitefishes of other regions. By David Starr Jordan and Barton Warren Evermann. Bulletin, vol. xxix, 1909, p. 1-42, pl. i-vii, 23 text fig. 1911.
738. Influence of the eyes, ears, and other allied sense organs on the movements of the dogfish, *Mustelus canis* (Mitchill). By George H. Parker. Bulletin, vol. xxix, 1909, p. 43-57. 1910.
739. Barnacles of Japan and Bering Sea. By Henry A. Pillsbry. Bulletin, vol. xxix, 1909, p. 59-84, 11 text fig., pl. viii-xvii. 1911.
741. Dredging and hydrographic records of the U. S. Fisheries steamer *Albatross* during the Philippine expedition, 1907-1910. 97 p. 1910.
742. The food value of sea mussels. By Irving A. Field. Bulletin, vol. xxix, 1909, p. 85-123, 2 text fig., pl. xviii-xxv. 1911.
743. The migration of salmon in the Columbia River. By Charles W. Greene. Bulletin, vol. xxix, 1909, p. 129-148, pl. xxvi-xxvii. 1911.
744. Anatomy and physiology of the wing-shell *Atrina rigida*. By Benjamin H. Grave. Bulletin, vol. xxix, 1909, p. 409-439, 15 text fig., pl. xlviii-l. 1911.
745. Condition and extent of the natural oyster beds of Delaware. By H. F. Moore. 30 p., 1 chart. 1911.
747. Natural history of the American lobster. By Francis H. Herrick. Bulletin, vol. xxix, 1909, p. 149-408, pl. xxviii-xlvi, 42 text fig. 1911.
748. Special investigation of the Alaska fur-seal rookeries, 1910. By Harold Heath. 22 p. 1911.
749. The fur-seal fisheries of Alaska in 1910. By Walter I. Lembkey. 40 p. 1911.
750. Development of sponges from dissociated tissue cells. By H. V. Wilson. Bulletin, vol. xxx, 1910, p. 1-30, pl. i-v. 1911.
751. The salmon fisheries of the Pacific coast. By John N. Cobb. 180 p. 1911.
752. Effects of explosive sounds, such as those produced by motor boats and guns, upon fishes. By G. H. Parker. 10 p. 1911.
753. Report of the Commissioner of Fisheries. 1911. 70 p. 1912.
754. Fishes from Bering Sea and Kamchatka. By Charles Henry Gilbert and Charles Victor Burke. Bulletin, vol. xxx, 1910, p. 31-96, 37 text fig. 1912.
755. Sound as a directing influence in the movements of fishes. By G. H. Parker. Bulletin, vol. xxx, 1910, p. 97-104. 1912.
757. The mussel fauna of the Maumee River. By H. Walton Clark and Charles B. Wilson. 72 p., 2 pl. 1912.
758. The mussel fauna of the Kankakee Basin. By Charles B. Wilson and H. Walton Clark. 52 p., 1 pl., 1 map. 1912.
759. The mussels of the Big Buffalo Fork of White River, Ark. By S. E. Meek and H. Walton Clark. 20 p. 1912.
760. The Bryozoa of the Woods Hole region. By Raymond C. Osburn. Bulletin, vol. xxx, 1910, p. 203-266, pl. xviii-xxxi. 1912.
761. A review of the cephalopods of western North American. By S. Stillman Berry. Bulletin, vol. xxx, 1910, p. 267-336, 18 text fig., pl. xxxii-lvi. 1912.
762. Some hydroids of Beaufort, North Carolina. By C. McLean Fraser. Bulletin, vol. xxx, 1910, p. 337-388, 52 text fig. 1912.
763. Preliminary examination of the halibut fishing grounds of the Pacific coast. By A. B. Alexander. With introductory notes on the halibut fishery. By H. B. Joyce. 56 p. 1912.
764. Notes on a new species of flatfish from off the coast of New England. By William C. Kendall. Bulletin, vol. xxx, 1910, p. 389-394, pl. lvii. 1912.

Doc. No.

765. Mussel resources of the Holston and Clinch Rivers of eastern Tennessee. By J. F. Boepple and R. E. Coker. 13 p. 1912.
767. Age at maturity of the Pacific coast salmon of the genus *Oncorhynchus*. By Chas. H. Gilbert. Bulletin, vol. xxxii, 1912, p. 1-22, pl. i-xvii. 1913.
768. A new species of trout from Lake Tahoe. By John Otterbein Snyder. Bulletin vol. xxxii, 1912, p. 23-28. 1912.
769. Condition and extent of the natural oyster beds and barren bottoms of Mississippi Sound, Alabama. By H. F. Moore. 61 p., 5 pl., 1 text fig., 1 chart. 1913.
770. Distribution of fish and fish eggs during the fiscal year 1912. 108 p. 1913.
771. Identification of the glochidia of fresh-water mussels. By Thaddeus Surber. 10 p., 3 pl. 1913.
772. Report of the Commissioner of Fisheries, 1912. 69 p. 1913.
773. Description of a new darter from Maryland. By Lewis Radcliffe and William W. Welsh. Bulletin, vol. xxxii, 1912. p. 29-32, pl. xviii. 1913.
774. Condition and extent of the natural oyster beds and barren bottoms of Mississippi east of Biloxi. By H. F. Moore. 41 p., 6 pl., 1 chart. 1913.
775. The sense of smell in fishes. By G. H. Parker and R. E. Sheldon. Bulletin, vol. xxxii, 1912, p. 33-46. 1913.
776. The fishes of the streams tributary to Monterey Bay, California. By John Otterbein Snyder. Bulletin, vol. xxxii, 1912, p. 47-72, 3 text fig., pl. xix-xxiv. 1913.
777. Anatomy and histology of the alimentary tract of the king salmon. By Charles W. Greene. Bulletin, vol. xxxii, 1912, p. 73-100, pl. xxv-xxviii. 1913.
778. Notes on the natural hosts of fresh-water mussels. By Thaddeus Surber. Bulletin, vol. xxxii, 1912, p. 101-116, pl. xxix-xxxi, 1 text fig. 1913.
779. Observations on fish scales. By T. D. A. Cockerell. Bulletin, vol. xxxii, 1912, p. 117-174, pl. xxxii-xl, 52 text fig. 1913.
780. Fishery and fur industries of Alaska in 1912. By Barton W. Evermann. 123 p. 1913.
781. The mussels of the Cumberland River and its tributaries. By H. Walton Clark and Charles B. Willson. 63 p., 1 pl. 1913.
782. Report of the Commissioner of Fisheries, 1913. 78 p. 1914.
783. Fishes and fishing in Sunapee Lake. By William Converse Kendall. 96 p., 9 pl., 4 text fig. 1913.
784. A new method for the determination of the food value of proteins, with application to the *Cynoscion regalis*. By George F. White and Adrian Thomas. Bulletin, vol. xxxii, 1912, p. 175-181, 2 text fig. 1914.
785. Properties of fish and vegetable oil mixtures. By George F. White and Adrian Thomas. Bulletin, vol. xxxii, 1912, p. 183-198, 9 text fig. 1914.
786. The effect of water-gas tar on oysters. By Philip H. Mitchell. Bulletin, vol. xxxii, 1912, p. 199-206. 1914.
787. The oxygen requirements of shellfish. By Philip H. Mitchell. Bulletin, vol. xxxii, 1912, p. 207-222, 1 text fig. 1914.
- The Anthozoa of the Woods Hole region. By Charles W. Hargitt. Bulletin, vol. xxxii, 1912. (In press.)
- The storage of fat in the muscular tissue of the king salmon and its resorption during the fast of the spawning migration. By Charles W. Greene. Bulletin, vol. xxxii, 1912. (In press.)
- Carcinoma of the thyroid in salmonoid fishes. By Harvey R. Gaylord and Millard C. Marsh. Bulletin, vol. xxxii, 1912. (In press.)
- The skeletal musculature of the king salmon. By Charles W. Greene and Carl H. Greene. Bulletin, vol. xxxii, 1912. (In press.)
- The embryology and larval development of *Bairdiella chrysura* and *Anchoa mitchilli*. By Albert Kuntz. Bulletin, vol. xxxii, 1912. (In press.)

Doc. No.

Experimental study of the growth and migration of fresh-water mussels. By Frederick B. Isely. (In press.)

793. The protection of fresh-water mussels. By R. E. Croker. 23 p., 2 pl. 1914.
The cephalopoda of the Hawaiian Islands. By S. Stillman Berry. Bulletin, vol. xxxii, 1912. (In press.)

ECONOMIC CIRCULARS.**No.**

3. Mussels of central and northern Minnesota. 6 p. Oct. 26, 1912.
5. The artificial propagation of the diamond-back terrapin. 14 p., 2 text fig. June 23, 1913.
6. The mussel fisheries of Caddo Lake and Cypress and Sulphur Rivers of Texas and Louisiana. 10 p. Dec. 10, 1913.
7. Opportunity for a new sea scallop fishery off the Middle Atlantic coast. 5 p., 2 text fig. Jan. 28, 1914.

BUREAU OF FOREIGN AND DOMESTIC COMMERCE.**REGULAR PUBLICATIONS.**

The regular publications of the bureau are as follows:

Report of the Chief of the Bureau of Foreign and Domestic Commerce. (Annual.)

Consular and Trade Reports. (Daily.)

Commercial Relations of the United States with Foreign Countries. (Annual.)

Report on the Commerce and Navigation of the United States. (Annual.)

Statistical Abstract of the United States. (Annual.)

Imported Merchandise Entered for Consumption in the United States and Duties Collected Thereon. (Quarterly.)

Advance Sheets from the Summary of Commerce and Finance. (Monthly.)

Summary of Commerce and Finance of the United States. (Monthly.)

Bulletin of Exports of Domestic Breadstuffs, Meats and Dairy Products, Food Animals, Cotton, and Mineral Oils. (Monthly.)

Sailing Dates of Steamships from Ports in the United States to Ports in Foreign Countries.^a (Monthly.)

Applicants to whom the foregoing publications are of value may have their names placed on the mailing lists to receive them regularly, so long as the editions allowed for distribution will permit, on application to "Chief of the Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D. C." In considering such requests, however, the bureau feels impelled to give preference to applications received from those for whose special benefit the several publications are issued.

The following back numbers of regular publications are available for distribution and can be had free of expense upon application. As the number of copies of the earlier publications remaining for distribution is quite limited, they will be sent only in response to requests from libraries, trade bodies, and other depositories where they will be kept for general reference.

^a Sold by Superintendent of Documents.

Annual report of the Chief of the Bureau of Manufactures, 1912. 11 p. 1912.
[There are also available a limited number of the annual reports for each year since 1906, with the exception of 1909.]

Annual report of commerce and navigation of the United States, fiscal years 1878, 1884 (pt. 2), 1886 (pt. 2), 1887 (pt. 2), 1893 (pt. 1), 1895, 1896, 1897, 1899, 1900, 1901, 1902, 1903, and 1904. 2 vols. 2074 p.

Same, fiscal years 1876, 1877, 1879, 1880, 1885, 1886, 1888, 1889, 1891, 1893, 1894, 1898, 1905, 1906, 1907, 1908, 1909, 1910, 1911, and 1912. 1 vol. 1263 p.

Parts of commerce and navigation :

Annual review of the foreign commerce of the United States and summary tables of commerce. (Fiscal years 1909, 1910, 1911, and 1912.) 70 p.

Tables Nos. 1 and 2. Imports and exports of gold and silver and merchandise into and from the United States by customs districts and countries and by countries and customs districts. (Fiscal years 1909, 1910, 1911, and 1912.) 54 p.

Table No. 3. Imports of merchandise into the United States, by articles and countries (five-year tables). (Fiscal years 1909, 1910, 1911, and 1912.) 260 p.

Tables Nos. 4 and 5. Imports of merchandise by articles and customs districts, and summary, by articles. (Fiscal years 1909, 1910, 1911, and 1912.) 120 p.

Table No. 6. Exports of domestic merchandise from the United States, by articles and countries (five-year tables). (Fiscal years 1910, 1911, and 1912.) 324 p.

Tables Nos. 7 and 8. Exports of domestic merchandise by articles and customs districts, and summary, by articles. (Fiscal years 1909, 1910, 1911, and 1912.) 77 p.

Tables Nos. 15 and 16. Imported merchandise entered for consumption in the United States and duties collected thereon, by articles, and total values, by customs districts and ports. (Fiscal years 1909, 1911, 1912, and 1913.) 75 p.

Tables Nos. 17 and 18. Drawback paid on articles exported. (Fiscal years 1909 and 1911.) 20 p.

Table No. 19. Imports and exports by countries and articles (five-year tables). (Fiscal years 1910, 1911, and 1912.) 100 p.

Tables Nos. 20 and 21. Tonnage movement of American and foreign vessels in the foreign trade of the United States. (Fiscal year 1909.) 75 p.

Tables Nos. 22 to 55. Commerce of the noncontiguous territory of the United States. (Fiscal years 1910, 1911, and 1912.) 30 p.

Statistical abstract of the United States, 1880, 1889, 1892, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, and 1908. 803 p.

Imported merchandise entered for consumption in the United States and duties collected thereon, quarters ending Dec. 31, 1911; Mar. 31, June 30, Sept. 30, and Dec. 31, 1912; Mar. 31 and June 30, 1913.

Monthly summary of commerce and finance. 105 p. (average).

1893. July, August, September, November.

1894. January, February, March, April, May, June, July, August, September, November, December.

1895. February.

1896. January, February, May, June, August, September, October, November, December.

1897. January, February, March, April, May, June, August, September, November, December.

1898. January, February, March, June, August, September, October, November, December.

1899. January, February, March, May, July, October.

1900. April, July, October.

1901. January, February, March, April, May, September.

1902. January, February, March, April, July, August, September, October, November.

Monthly summary of commerce and finance—Continued.

- 1903. January, February, March, April, May, June, July, August, September, October, November, December.
- 1904. February, March, April, May, June, July, August, September, October, November.
- 1905. February, March, April, May, June, July, August, September, October, November, December.
- 1906. January, February, March, April, May, June, July, August, September, October, November, December.
- 1907. January, February, March, April, May, June, July, August, September, October, November, December.
- 1908. January, February, March, April, May, June, July, August, September, October, November, December.
- 1909. January, February, March, April, May, June, July, August, September, October, November, December.
- 1910. January, February, March, April, May, June, July, August, September, October, November, December.
- 1911. January, February, March, April, May, June, July, August, September, October, November, December.
- 1912. January, February, March, April, May, June, July, August, September, October, November, December.
- 1913. January, February, March, April, May, July, November.

SPECIAL AGENTS SERIES.

- 12. Report on trade conditions in Asiatic Turkey. 45 p. 1907.
- 18. Cotton textile trade in Turkish Empire, Greece, and Italy. 125 p. 1908.
- 27. German iron and steel industry. 73 p. 1909.
- 28. American agricultural implements in Europe, Asia, and Africa. 88 p. 1909.
- 30. Flour and wheat trade in European countries and the Levant. 168 p. 1909.
- 32. Machine-tool trade in Belgium. 93 p. 1909.
- 35. Flour trade in Latin America—Part 1. Porto Rico. 30 p. 1910.
- 42. Industrial conditions in Europe—Part 2. Austria-Hungary. 48 p. 1910.
- 44. Cotton goods in Latin America—Part 4. Chile, Bolivia, Peru, Ecuador, Jamaica and Porto Rico. 118 p., 8 text fig. 1911.
- 46. Cotton goods in Spain and Portugal. 60 p., 1 text fig. 1911.
- 47. English cotton-goods trade. 11 p. 1911.
- 48. Cotton goods in Italy. 55 p. 1912.
- 49. Shoe and leather trade in the United Kingdom. 80 p. 1912.
- 50. Shoe and leather trade in Germany. 48 p. 1912.
- 51. Cotton goods in Russia. 48 p. 1912.
- 53. Cotton goods in the Balkan States. 47 p. 1912.
- 54. Cotton goods in Turkey.—Part II. Saloniki and Smyrna. 36 p. 1912.
Same—Part III. Syria and Bagdad. 48 p. 1913.
- 56. English methods of dyeing, finishing, and marketing cotton goods. 35 p. 1912.
- 57. Shoe and leather trade in France and Switzerland. 44 p. 1912.
- 58. Packing and marketing of cotton. 39 p., 10 fig. 1912.
- 59. Mining in the Federated Malay States. 25 p., 5 text fig. 1912.
- 61. Cuba as a buyer and seller. 32 p. 1912.
- 62. Foreign credits. 421 p. 1913.
- 63. Shoe and leather trade in Scandinavia. 38 p. 1912.
- 64. Cotton goods in Egypt. 24 p. 1912.
- 65. Chemical industries of Belgium, Netherlands, Norway, and Sweden. 85 p. 1912.
- 66. Electrical instruments and meters in Europe. 88 p., 6 text fig. 1913.

67. Commerce and industries of Alaska, Hawaii, Porto Rico, and the Philippine Islands. 116 p. 1913.
68. Shoe and leather trade in Russia. 23 p. 1913.
69. Cotton goods in Canada. 50 p. 1913.
70. Shoe and leather trade in Italy and Austria-Hungary. 60 p. 1913.
71. Cotton goods in the Red Sea markets. 64 p. 1913.
72. Transportation rates to the west coast of South America. 99 p. 1913.
73. Shoe and leather trade in Belgium, Spain, and Egypt. 34 p. 1913.
75. Edible oils in the Mediterranean district. 32 p. 1913.
76. Commerce and industries of Canada and Newfoundland. 94 p. 1913.
77. Production and use of denatured alcohol in foreign countries. (In press.)
79. Commercial organizations in Southern and Western cities. (In press.)

SPECIAL CONSULAR REPORTS.

40. Motor machines—Part 2. 144 p. 1908.
41. Part 3—Commercial courts in Europe. 29 p. 1909.
Part 4—Police and work dogs in Europe. 16 p., 7 text fig. 1909.
Part 6—Manufacture of air-nitrate fertilizers. 16 p., 2 text fig. 1909.
42. Part 1—Municipal art commissions and street lighting in European cities. 80 p. 1910.
Part 2—Municipal taxation in European countries. 88 p. 1910.
43. Part 2—Agricultural machinery in foreign countries. 38 p., 3 text fig. 1910.
Part 3—Camphor industry in foreign countries. 15 p., 2 text fig. 1910.
45. Cordage and twine trade in foreign countries. 47 p. 1911.
46. Optical-goods trade in foreign countries. 94 p. 1911.
47. Australia, its resources, industries, and trade, with suggestions as to its development as a market for American merchandise. 126 p. 1911.
48. Railway situation in China. 32 p. 1911.
49. The Gothenburg system. Law and regulations governing the manufacture and sale of alcoholic beverages in Gothenburg, Sweden. 48 p. 1911.
50. Cocoa production and trade. 51 p. 1912.
51. Foreign trade in denatured alcohol. 36 p. 1912.
52. Foreign salt market and industry. 82 p. 1912.
53. Foreign markets for motor vehicles. 143 p. 1912.
54. Foreign trade in canned goods. 192 p. 1912.
55. Foreign trade in musical instruments. 102 p. 1912.
56. Foreign trade in paints and varnishes. 72 p. 1912.
57. New Zealand, its resources, industries, and trade, with suggestions as to its development for American merchandise. 220 p., 1 map. 1912.
58. Machine tools in Latin America. 32 p. 1913.
60. Foreign markets for railway supplies and equipment. 224 p., 3 text fig. 1913.
61. Russia: A handbook on commercial and industrial conditions. 253 p. 1913.
62. Markets for American fruit. 54 p. 1913.

TARIFF SERIES.

- No. 2. Tariffs on agricultural and animal products. 120 p. 1907.
- No. 3A. Supplement to Tariff Series, No. 3. 34 p. 1910.
- No. 6c. Commercial convention between France and Canada. 35 p. 1909.
- No. 7. Customs tariff of the German Customs Union. Law of Dec. 25, 1902, revised to June, 1911. 127 p. 1911.
- No. 7A. Supplement to German customs tariff. 10 p. 1912.
- No. 8. Customs tariff of New Zealand. 36 p. 1908.
- No. 14. Customs tariff of Bahamas, British West Indies. 12 p. 1908.
- No. 14A. Supplement to customs tariff of Bahamas. 1 p. 1909.

- No. 14a. Supplement to customs tariff of Bahamas. 2 p. 1911.
 No. 19. Commercial travelers in foreign countries. 71 p. 1908.
 No. 19A. Commercial travelers and samples in South America. (Revised to Jan. 1, 1914.) 12 p. 1914.
 No. 20. Export tariffs of foreign countries. 48 p. 1909.
 No. 24. Consular regulations of foreign countries. 75 p. 1910.
 No. 25. Customs tariff of France. 132 p. 1910.
 No. 25A. Supplement to customs tariff of France. 14 p. 1912.
 No. 26. Tariff relations of Canada. System now in force and proposed concessions to the United States. Mar., 1911. 39 p. 1911.
 No. 27. Customs tariff of Cuba. Revised to Nov., 1911. 89 p. 1911.
 No. 27A. Supplement to customs tariff of Cuba. 1 p. 1911.
 No. 28. Customs tariff of Japan. 88 p. 1912.
 No. 28A. Supplement to customs tariff of Japan. 2 p. 1913.

The Bureau issues also from time to time compilations of foreign tariff notes from the Daily Consular and Trade Reports. Nos. 1 to 11 of the series (except No. 9), embodying extracts from the Daily from July 5, 1910, to December 31, 1913, are available for distribution.

MISCELLANEOUS PUBLICATIONS.

- Promotion of commerce. Outline of the service maintained by the Bureau of Foreign and Domestic Commerce and other bureaus and offices of the Government of the United States. [Misc. series No. 6c.] 28 p. 1913.
 Foreign publications for advertising American goods. Advertising rates, circulation, subscription price, etc. [Misc. series No. 10.] 236 p. 1913.
 Publications on South America. Brief review of information available to manufacturers and exporters in bulletins issued by the Bureau of Foreign and Domestic Commerce. [Misc. series No. 12.] 11 p. 1913.
 Trade directory of South America. [Misc. series no. 13.] (In press.) (Sold by Superintendent of Documents; no free distribution.)
 Analysis of the foreign commerce of the United States. 144 p. 1906.
 Calendar-year statements, total values of imports and exports of merchandise and of gold and silver. 47 p. 1911 and 1912.
 Commercial Korea in 1904. 34 p. 1904.
 Commercial Russia in 1904. 113 p. 1905.
 Foreign commerce of Spain. 1898. 16 p. 1898.
 Movement of wholesale prices in Great Britain and the United States. 25 p. 1904.
 Passenger movement at ports of the United States. 14 p. 1905.
 Statistical abstract of foreign countries. 470 p. 1909.
 Statistical record of the progress of the United States, 1800-1913, and monetary, commercial, and financial statistics of principal countries. [From Statistical Abstract of the United States.] 90 p. 1913.
 Transportation routes and systems of the world. Map. 1909.

BUREAU OF LIGHTHOUSES.

In addition to the publications listed below, the Bureau, in collaboration with the Coast and Geodetic Survey, publishes weekly, for the benefit of mariners and others interested in navigation, a Notice to Mariners. Requests to be placed on the mailing list to receive the publication regularly should be addressed to the Division of Publications, Department of Commerce, Washington, D. C.

- Light list, Atlantic and Gulf coasts of the United States. Corrected to Jan. 1, 1914. (In press.)
 Same, Pacific coast—United States, Canada, and Hawaiian and Samoan Islands. (In press.)

- Light list, Great Lakes, United States and Canada. Corrected to Oct. 1, 1912. 209 p. 1912.
- Atlantic coast of the United States. Buoy list, Maine and New Hampshire. First lighthouse district. Corrected to Jan. 1, 1914. (In press.)
- Same, coast of Massachusetts. Second lighthouse district. Corrected to Jan. 1, 1914. (In press.)
- Same, Narragansett Bay to Cape May, including New York Harbor. Third lighthouse district. Corrected to Aug. 1, 1913. 90 p. 1913.
- Same, Delaware Bay and River, including Philadelphia Harbor. Fourth lighthouse district. Corrected to Sept. 1, 1913. 26 p. 1913.
- Same, Cape Henlopen to Cape Lookout, including Chesapeake Bay and North Carolina Sounds. Fifth lighthouse district. Corrected to Apr. 15, 1913. 95 p. 1913.
- Same, Cape Lookout to Hillsboro Inlet. Sixth lighthouse district. Corrected to Jan. 1, 1914. (In press.)
- Same, Florida Reefs, and Gulf coast to Cedar Keys. Seventh lighthouse district. Corrected to Jan. 1, 1914. (In press.)
- Gulf coast of the United States. Buoy list, Cedar Keys to the Rio Grande. Eighth lighthouse district. Corrected to Dec. 15, 1912. 41 p. 1912.
- West Indies. Buoy list, Porto Rico and adjacent islands. Ninth lighthouse district. Corrected to Dec. 15, 1913. 17 p. 1913.
- Great Lakes. Buoy list, Lake Erie and Lake Ontario and St. Lawrence River. Tenth lighthouse district. Corrected to Aug. 1, 1912. 47 p. 1912.
- Same, Lake Huron and Lake Superior and connecting waters. Eleventh lighthouse district. Corrected to Oct. 1, 1912. 67 p. 1912.
- Same, Lake Michigan and Green Bay. Twelfth lighthouse district. Corrected to Aug. 1, 1912. 44 p. 1912.
- Light list, upper Mississippi River and tributaries. Thirteenth lighthouse district. Corrected to July 15, 1913. 255 p. 1913.
- Same, Ohio River and tributaries. Fourteenth lighthouse district. Corrected to Sept. 15, 1913. 135 p. 1913.
- Same, lower Mississippi River and tributaries. Fifteenth lighthouse district. Corrected to Nov. 15, 1913. 103 p. 1913.
- Alaska. Buoy list. Sixteenth lighthouse district. Corrected to June 1, 1913. 24 p. 1913.
- Pacific coast of the United States. Buoy list, Oregon and Washington. Seventeenth lighthouse district. Corrected to Jan. 1, 1914. (In press.)
- Same, California. Eighteenth lighthouse district. Corrected to Jan. 1, 1914. (In press.)
- Pacific Islands of the United States. Buoy list, Hawaiian and Samoan Islands. Nineteenth lighthouse district. Corrected to June 30, 1913. 17 p. 1913.
- Annual report of the Commissioner of Lighthouses, 1913. 108 p. 1913. [There are also on hand a limited supply of each of the annual reports since 1873, except those for 1879, 1881, 1882, 1883, and 1886.]
- Report upon fog-signal experiments. By Maj. William R. Livermore, Corps of Engineers, U. S. A. 376 p., 74 pl. 1894.
- Aberrations of audibility of fog-signals. By Arnold B. Johnson, chief clerk of the Lighthouse Board. 16 p., 1 pl. 1885.
- History of the application of electric light to lighting the coasts of France. By Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 p., 25 pl. 1883.
- Memoir upon the lighthouse illumination of the coasts of France. (Reynaud.) Translated by Rear Admiral Thornton A. Jenkins, U. S. N., Naval Secretary, Lighthouse Board. 144 p., illus. 1871.
- Report upon the exhibit of the Lighthouse Board at the World's Columbian Exposition held at Chicago, 1893. By A. B. Johnson, chief clerk, Lighthouse Board. 42 p., illus. 1894.
- Regulations for lighting bridges, 1912. 14 p., 5 pl. 1912.
- Whitewash and cement-wash formulas. 1 p.

BUREAU OF NAVIGATION.

Annual report of the Commissioner of Navigation, 1913. 216 p. 1913. [There are also available a few copies of the reports for 1885, 1889, 1890, and 1894 to 1912, inclusive.]

Merchant vessels of the United States, with official numbers and signal letters, and lists of vessels belonging to the United States Government, with distinguishing signals, for the year ended June 30, 1913. 482 p. 1913.

Seagoing vessels of the United States with official numbers and signal letters. Part VI of the 45th annual list of merchant vessels of the United States for the year ended June 30, 1913. (Printed exclusively for the instruction of captains of seagoing vessels of the United States.) 124 p., il. 1913.

Rules and regulations relating to the anchorage of vessels in the port of New York. (June 15, 1911.) 8 p., 8 pl. 1911.

Rules for the St. Marys River. Apr. 15, 1911. 14 p. 1911.

Rules and regulations relating to the anchorage and movement of vessels in harbors of Chicago. May 7, 1909. 6 p., 1 pl. 1909.

Regulations governing radio communication. July 1, 1913. 15 p. 1913.

Regulations for radio apparatus and operators on steamers. July 1, 1913. 11 p. 1913.

London International Radiotelegraphic Convention. May 8, 1913. 31 p. 1913.

Radio stations of the United States. July 1, 1913. 147 p. 1913.

Same, Supplement No. 1. Oct. 1, 1913. 27 p. 1913.

BUREAU OF STANDARDS.

In addition to the tests and comparisons made by the Bureau of Standards, its work includes such researches as are involved in the establishment and maintenance of the various standards and units of measurement, the development of measuring instruments and methods of measurement, the determination of physical constants and the properties of materials. The results of these investigations are published in pamphlet form, and in the following pages is given a list of these papers. They cover a wide range of subjects in the field of physical measurements and are issued for general distribution to the scientific, technical, and industrial interests concerned with the subjects treated. The papers will be sent upon request and may be designated by the numbers which precede the titles in the list. It is assumed that individuals generally are interested in a particular class of work; hence this method of distribution has been adopted in order that each may secure the particular information desired.

These scientific papers are also collated and bound from time to time in the form of a bulletin, which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential; also to a limited number of persons especially concerned with the work of the Bureau as a whole. Arrangements have been made, however, for the sale of copies of the Bulletin by the Superintendent of Documents, Government Printing Office, Washington, D. C., direct to private individuals, of which due announcement will be made.

The regulations under which tests and comparisons are made by the Bureau and other general information concerning its work are issued in the form of circulars, which are sent upon request.

SCIENTIFIC PAPERS.

1. Recomparison of the United States prototype meter. By L. A. Fischer. Bulletin, vol. 1, 1904-5, p. 5-19. 1905.
2. A study of the silver voltameter. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 21-37. 1905.
4. The spectra of mixed gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 77-81. 1905.
5. On secondary spectra and the conditions under which they may be produced. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 83-94. 1905.
6. Some new rectifying effects in conducting gases. By P. G. Nutting. Bulletin, vol. 1, 1904-5, p. 95-100. 1905.
7. On fibers resembling fused quartz in their elastic properties. By K. E. Guthe. Bulletin, vol. 1, 1904-5, p. 101-107. 1905.
8. On the temperature of the arc. By C. W. Waldner and G. K. Burgess. Bulletin, vol. 1, 1904-5, p. 109-124. 1905.
9. The absolute measurement of inductance. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 125-152. 1905.
10. The absolute measurement of capacity. By E. B. Rosa and F. W. Grover. Bulletin, vol. 1, 1904-5, p. 153-187. 1905.
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70. Clark and Weston standard cells. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 1-80. 1907.
71. The electrode equilibrium of the standard cell. By F. A. Wolff and C. E. Waters. Bulletin, vol. 4, 1907-8, p. 81-89. 1907.
72. A comparative study of plain and frosted lamps. By E. P. Hyde and F. E. Cady. Bulletin, vol. 4, 1907-8, p. 91-120. 1907.
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76. The influence of frequency on the resistance and inductance of solenoidal coils. By Louis Cohen. Bulletin, vol. 4, 1907-8, p. 161-178. 1907.
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83. The self-inductance of a coil of any length and any number of layers of wire. By Edward B. Rosa. Bulletin, vol. 4, 1907-8, p. 369-381. 1908.
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158. Some experiments with coupled high-frequency circuits. By L. W. Austin. Bulletin, vol. 7, 1910-11, p. 301-314. 1911.
159. Some quantitative experiments in long-distance radiotelegraphy. By L. W. Austin. Bulletin, vol. 7, 1910-11, p. 315-363. 1911.
160. The behavior of high-boiling mineral oils on heating in the air. By C. E. Waters. Bulletin, vol. 7, 1910-11, p. 365-376. 1911.
161. The determination of vanadium in vanadium and chrome-vanadium steels. By J. R. Cain. Bulletin, vol. 7, 1910-11, p. 377-392. 1911.
162. On the computation of the constant C_2 of Planck's equation by an extension of Paschen's method of equal ordinates. By Edgar Buckingham and J. H. Dellinger. Bulletin, vol. 7, 1910-1911, p. 393-406. 1911.
163. A comparison of American direct-current switchboard voltmeters and ammeters. By T. T. Fitch and C. J. Huber. Bulletin, vol. 7, 1910-11, p. 407-422. 1911.

164. Study of the current transformer with particular reference to iron loss. By P. G. Agnew. Bulletin, vol. 7, 1910-11, p. 423-474. 1911.
165. Thermodynamics of concentration cells. By H. S. Carhart. Bulletin, vol. 7, 1910-11, p. 475-494. 1911.
166. The capacity and phase difference of paraffined paper condensers as functions of temperature and frequency. By F. W. Grover. Bulletin, vol. 7, 1910-11, p. 495-578. 1911.
167. The steam-turbine expansion line on the Mollier diagram and a short method of finding the reheat factor. By Edgar Buckingham. Bulletin, vol. 7, 1910-11, p. 579-617. 1911.
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169. Formulas and tables for the calculation of mutual and self-induction. [2d ed., rev. and enl.] By E. B. Rosa and F. W. Grover. Bulletin, vol. 8, 1911-12, p. 1-237. 1912.
170. The correction for emergent stem of the mercurial thermometer. By Edgar Buckingham. Bulletin, vol. 8, 1911-12, p. 239-267. 1911.
171. A determination of the international ampere in absolute measure. By E. B. Rosa, N. E. Dorsey, and J. M. Miller. Bulletin, vol. 8, 1911-12, p. 269-393. 1912.
172. Deflection potentiometers for current and voltage measurements. By H. B. Brooks. Bulletin, vol. 8, 1911-12, p. 395-417. 1912.
173. Outline of design of deflection potentiometers, with notes on the design of moving-coil galvanometers. By H. B. Brooks. Bulletin, vol. 8, 1911-12, p. 419-444. 1912.
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181. The four-terminal conductor and the Thomson bridge. By Frank Wenner. Bulletin, vol. 8, 1911-12, p. 559-610. 1912.
182. Standardization of potassium permanganate solution by sodium oxalate. By R. S. McBride. Bulletin, vol. 8, 1911-12, p. 611-642. 1912.
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TECHNOLOGIC PAPERS.

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9. Density and thermal expansion of linseed oil and turpentine. By Henry W. Bearce. 1912. 27 p. 1912.
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BUREAU CIRCULARS.

2. Measurements of length and area, including thermal expansion. 4th ed., rev. and enl., May 1, 1912, superseding 3d ed. of Circular No. 2 on "Metal Tapes." 21 p.
3. Verification of standards of mass. 2d ed., rev., Jan. 10, 1907. 7 p.
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23. Standardization of electrical practice in mines. July 15, 1910. 93 p.
24. Publications of the Bureau of Standards. 4th ed., rev., July 1, 1913. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstracts of each title.] 54 p.
25. Standard analyzed samples. General information. 5th ed., rev., Sept. 1, 1913. 12 p. [Also Insert. 4 p.]
26. Analyzed iron and manganese ores. Methods of analysis. 3d ed., rev., May 26, 1913. 20 p.
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[Also Supplement. Oct. 1, 1913. 16 p.]
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46. The testing of barometers. Feb. 1, 1914. 12 p.
47. Units of weight and measure; definitions and tables of equivalents. (In press.)

MISCELLANEOUS.

- Annual report of the Director of the Bureau of Standards, 1913. 28 p. 1914.
[There are also available a few copies of the annual reports for the years 1901 and 1903 to 1912, inclusive.]
- The international metric system. (Chart.)
- The international metric system of weights and measures. 15 p. 1906.
- State and national laws concerning the weights and measures of the United States. 2d ed. 564 p. 1912.
- First conference on the weights and measures of the United States. 46 p. 1905.
- Second annual conference on the weights and measures of the United States. 60 p. 1906.
- Third annual conference on the weights and measures of the United States. 110 p. 1910.
- Sixth annual conference on the weights and measures of the United States. 157 p. 1912.
- Seventh annual conference on the weights and measures of the United States. 186 p. 1912.
- Eighth annual conference on the weights and measures of the United States. (In press.)
- The National Bureau of Standards. [Description of the work of the Bureau.] 24 p. 1911.
- Report to the international committee on electrical units and standards of a special technical committee appointed to investigate and report on the concrete standards of the international electrical units and to recommend a value for the Weston normal cell. Jan. 1, 1912. 207 p. 1912.
- Same, Supplement. 34 p. 1913.

STEAMBOAT-INSPECTION SERVICE.

Annual report of the Supervising Inspector General, Steamboat-Inspection Service, 1913. 42 p. 1913. [There are also available a few copies of each of the annual reports for 1910 to 1912, inclusive.]

List of officers of merchant steam, motor, and sail vessels licensed during the year ended June 30, 1913, for a period of five years. 270 p. 1913.

Laws governing the Steamboat-Inspection Service. Edition Apr. 15, 1913. 63 p. 1913.

General rules and regulations prescribed by the Board of Supervising Inspectors, as amended January, 1913. Edition Jan. 13, 1914. 145 p., 7 text fig. 1914.

Pilot rules for certain inland waters of the Atlantic and Pacific coasts and of the coast of the Gulf of Mexico. Edition July 1, 1913. 29 p., 5 text fig. 1913.

Pilot rules for the rivers whose waters flow into the Gulf of Mexico and their tributaries and the Red River of the North. Edition Aug. 1, 1911. 22 p. 5 text fig. 1913.

Pilot rules for the Great Lakes and their connecting and tributary waters. Edition May 1, 1912. 20 p., 5 text fig. 1913.



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PREFATORY NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications, most of which are intended for free but judicious distribution. The object of this pamphlet is to acquaint the general public with the titles, sizes, and dates of issue of these publications so far as they are available for distribution at the present time.

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and can also, as a rule, be purchased at a small price by application to the "Superintendent of Documents, Office of the Public Printer, Washington, D. C."

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Coast Pilots, Tide Tables, and Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address, and stating specifically the publication or publications received by them. The Department should be notified promptly when publications are no longer desired.

PUBLICATIONS AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1914. 210 p. 5 pl. 1 map, 20 text fig. [There is also on hand limited supply of Secretary's report for each of years 1903 to 1913, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated] 1914. 834 p. 5 pl. 1 map, 20 text fig. [There is also on hand limited supply of consolidated reports of Department for each of years 1904, 1905, 1909, 1911, 1912, and 1913.]

Annual report of Chief of Appointment Division, 1914. 24 p. [There are also available copies of each annual report from 1910 to 1912, inclusive.]

Annual report of Chief of Division of Publications, 1914. 45 p. [There are also available each annual report from 1907 to 1913, inclusive.]

Condensed history, duties, and practical operation of Department and its several bureaus and offices. July 1, 1913. 63 p.

Same, together with laws relating specifically thereto. July 1, 1913. 211 p.

List of publications of Department available for distribution. 11th ed. Jan 1, 1915. 73 p.

List of publications issued by Department. 8 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6, 1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are distributed free and may be obtained by addressing "Bureau of the Census, Washington, D. C." A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1880) REPORTS.

- Agriculture:** Including cereal production; flour-milling processes; tobacco; meat production. 1149 p.
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- Same:** pt. 2, Eastern Gulf, Atlantic, and Pacific States. 848 p.
- Defective, dependent, and delinquent classes of population** (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p.
- Manufactures:** Including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass. 1248 p.
- Mining industries** (exclusive of precious metals). 1064 p.
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- Mortality and vital statistics:** pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p.
- Same:** pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p.
- Newspaper and periodical press; Alaska; seal islands; shipbuilding.** 1122 p.
- Oyster industry.** 251 p.
- Power and machinery employed in manufactures, and ice industry of United States.** 666 p.
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- Valuation, taxation, and public indebtedness.** 920 p.
- Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts.** 792 p.

ELEVENTH CENSUS (1890) REPORTS.

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- Same:** pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1070 p.
- Same:** pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians, taxed and not taxed. 1158 p.
- Eastern Cherokees of North Carolina.** 24 p.
- Education.** 141 p.
- Five Civilized Tribes in Indian Territory.** 70 p.
- Insane, feeble-minded, deaf and dumb, and blind.** 768 p.
- Insurance business:** pt. 1, Fire, marine, and inland insurance. 1138 p.
- Same:** pt. 2, Life insurance. 490 p.
- Manufacturing industries:** pt. 2, Statistics of cities. 827 p.
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- Occupations, census of 1890.** 127 p.
- Population:** pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1140 p.
- Real estate mortgages.** 956 p.
- Textiles, census of 1890.** 236 p.
- Vital and social statistics:** pt. 1, Analysis and rate tables. 1077 p.
- Same:** pt. 2, Cities of 100,000 population and upward. 1191 p.
- Same:** pt. 3, Statistics of deaths. 1057 p.

Vital and social statistics: pt. 4, Statistics of deaths. 1039 p.

Wealth, debt, and taxation: pt. 1, Public debt. 902 p.

Same: pt. 2, Valuation and taxation. 662 p.

TWELFTH CENSUS (1900) REPORTS.

Abstract. 470 p.

Agriculture: pt. 1, Farms, live stock, and animal products. 1003 p.

Same: pt. 2, Crops and irrigation. 880 p.

Manufactures: pt. 2, By States and Territories. 1111 p.

Same: pt. 4, Selected industries. Includes iron and steel; tin and terne plate; lead, copper, and zinc, smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p.

Manufactures—Textiles (monograph). 258 p.

Occupations at Twelfth Census. 1029 p.

Revenue systems of State and local governments. 211 p.

Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1162 p.

Wealth, debt, and taxation—Abstract. 31 p.

THIRTEENTH CENSUS (1910) PUBLICATIONS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

Population: vol. 1. General report and analysis. 1369 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Number of inhabitants; 104 p. 2. Color or race, nativity, and parentage; 122 p. 3. Sex distribution; 42 p. 4. Age distribution; 218 p. 5. Marital condition; 182 p. 6. State of birth; 92 p. 7. Country of birth; 94 p. 8. Foreign white stock; 84 p. 9. Mother tongue; 58 p. 10. Year of immigration; 16 p. 11. Voting and militia ages; 64 p. 12. School attendance; 88 p. 13. Illiteracy; 80 p. 14. Inability to speak English; 20 p. 15. Dwellings and families; 8 p. 16. Ownership of homes; 74 p.]

Same, vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1160 p.

Same, vol. 3, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1225 p.

Same, vol. 4, Occupation statistics. 615 p. [The following tables from this volume have been reprinted as separates: 3. Occupation statistics, cities of 100,000 and over; 57 p. 4. Occupation statistics, cities of 25,000 and over; 85 p. 5 and 9. Occupation statistics, Alaska, Hawaii, and Porto Rico; 19 p.]

Agriculture: vol. 5, General report and analysis. 927 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 83 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 146 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.]

Same, vol. 6, Reports by States, with statistics for counties—Alabama to Montana. 977 p.

Same, vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1013 p.

Manufactures: vol. 8, General report and analysis. 845 p. [The following portions of this volume have been reprinted as separates: Tables 5 and 6. Comparative summary, principal industries, by States, 1909, 1904, and 1899; establishments, persons engaged, power, capital, expenses, and value of products; industries, by States, 1909; 245 p. Chap. 15 and Table 1. Description of individual industries with principal statistics for each; 145 p.]

Same, vol. 9, Reports by States, with statistics for principal cities. 1404 p.

Same, vol. 10, Reports for principal industries. 975 p. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motor cycles, and parts; 6 p. Blast furnace, steel works and rolling mill, wire, and tinplate and terneplate industries; 80 p. Boots and shoes, including cut stock and findings; 20 p. Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products: General chemical industry; bone, carbon, and lamp black; dyestuffs and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p. Flour-mill and gristmill products; 24 p. Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 19 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 19 p. Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p. Paper and wood pulp; 16 p. Petroleum refining; 10 p. Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 19 p. Silk manufactures [also included in Textiles]; 25 p. Slaughtering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p. Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 18 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p.]

Mining: vol. 11, Mines and quarries. 369 p. [The following sections of this volume have been printed as separates: Coal; 55 p. Iron mines; 25 p.]

Abstract of the Census with State supplements.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries). The same material also appears in the several series of State bulletins noted below.

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:

Introduction.

Population: 1. Number and distribution of inhabitants. 2. Color or race, nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native population. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries.

State bulletins.

The State bulletins, of which a few copies are still available for distribution, give, each for a particular State, the detailed results of the census in respect to population, agriculture, irrigation, or manufactures. These form six distinct series, as follows:

Population:

First series.—Number of inhabitants, by counties and minor civil divisions: Population of State and of each county and county subdivision; density of population; urban and rural population; comparative figures for 1900.

Second series.—Composition and characteristics of population: State, counties, cities and towns of 2,500 and over, and wards of cities of 50,000 and over—color, nativity, parentage, foreign nationalities, sex, males of voting age, illiteracy, school age and attendance, dwellings and families; State and counties only—urban and rural, citizenship of foreign born; cities of 25,000 and over only—age, marital condition.

The contents of these bulletins form volumes 2 and 3 of final reports.

Agriculture:

First series.—Farms and farm property, live stock, principal crops, and farm expenses.

Second series.—Statistics for State and its counties. Reproduces material in first series, and gives additional statistics relating to tenure, live-stock products, and minor crops, presenting in full for each State agricultural data gathered at census of 1910.

The contents of these bulletins form volumes 6 and 7 of final reports.

Irrigation:

Farms, acreage, and crops irrigated; irrigation works; cost of construction; cost of operation and maintenance. Separate bulletins for States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming, and a single bulletin covering the States of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas. The contents of these bulletins were printed in volumes 6 and 7 in connection with agricultural statistics of States to which they relate.

Manufactures:

Statistics of manufactures for State, cities, and industries. The contents of this series of bulletins are included in volume 9 of final reports.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States and, where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p. Color or race, nativity, parentage, sex, and males of voting and militia ages [reprint of chap. 2 of Abstract]; 43 p. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. Country of origin of population of foreign birth and parentage, and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p.

Agriculture: Farms and farm property; 20 p. General farm crops; 28 p. Live stock on farms and elsewhere; 34 p. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. Crops; 59 p. Live-stock products, and domestic animals sold or slaughtered on farms; 16 p.

Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p.

Manufactures: Manufactures, by States, cities, and industries; 96 p.

Mines: Statistics of mining, for industries and States; 24 p.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

Population of counties and equivalent subdivisions. 30 p.

Total population and area of the United States, by States and Territories. 16 p.

Population of cities of 2,500 inhabitants and over. 46 p.

Center of population and median lines, continental United States. 8 p.

Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p.

Cities and their suburbs. 6 p.

Population of incorporated places. 111 p.

Occupation statistics [summary of vol. 4 of final reports]. 107 p.

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

Population of New York City, by enumeration districts. 23 p.

Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p.

Chinese and Japanese in the United States. 50 p.

Age of farmers, by color of operator, character of tenure, and size of farm. 35 p.

Stability of farm operators, or term of occupancy of farms. 22 p.

Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.]

INTERCENSAL REPORTS (1900-1913).

Benevolent institutions: 1904, 335 p.; 1910, 411 p.

Blind and deaf: 1900. 274 p.

Central electric light and power stations: 1902. 185 p.

Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p.

Electrical industries: 1902. 822 p.

Express business in United States: 1907. 28 p.

Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p.

Insane and feeble-minded in institutions: 1904, 238 p.; 1910, 211 p.

Manufactures: 1905, pt. 1, United States by industries. 1030 p.

Marriage and divorce: 1867-1906, pt. 1, 535 p.; pt. 2, General tables, 850 p.

Mines and quarries: 1902. 1153 p.

Mortality: 1900-1904, 1003 p.; 1905, 360 p.; 1906, 486 p.; 1907, 538 p.; 1909, 810 p.; 1911, 572 p.; 1912, 382 p.

Paupers in almshouses: 1904. 216 p.

Religious bodies: 1906, pt. 1, Summary and general tables, 576 p.; pt. 2, Separate denominations: History, description, and statistics, 670 p.

Statistics of cities having population of over 30,000: 1905, 372 p.; 1906, 358 p.; 1909, 279 p.; 1910, 308 p.; 1911, 401 p.; 1912, 410 p.

General statistics of cities: 1909. 197 p.

Telephones and telegraphs: 1902. 184 p.

Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p.

Transportation by water: 1906. 240 p.

INTERCENSAL BULLETINS (1900-1914).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census, or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects.

Miscellaneous.

- Age statistics, discussion: 1880, 1890, 1900—13. 53 p.
- Central electric light and power stations and street and electric railways: 1912—124. 113 p.
- Child labor in United States: Twelfth Census, 1900—69. 200 p.
- Chinese and Japanese in United States: 1910—127. 50 p.
- Commercial valuation of railway operating property in United States: 1904—21. 88 p.
- Cotton ginned in United States: Crops of 1899 to 1902, inclusive—2. 46 p.
- Cotton production: 1905^a—40, 72 p.; 1906—76, 68 p.; 1907—95, 58 p.; 1909—107, 64 p.; 1910^a—111, 66 p.; 1911—114, 61 p.; 1912—116, 63 p.; 1913—125, 79 p.
- Cotton supply and distribution for year ended Aug. 31, 1905—25, 15 p.; 1907—90, 26 p.; 1908—97, 40 p.; 1909—106, 32 p.; 1910—110, 32 p.; 1911—113, 31 p.; 1912—115, 31 p.; 1913—117, 40 p.; 1914—128, 30 p.
- Earnings of wage earners (a study based on census of manufactures, 1905)—93. 179 p.
- Electrical industries of Porto Rico: 1907—99. 29 p.
- Estimates of population: 1904, 1905, 1906—71, 28 p.; 1910—1914—122, 24 p.
- Estimates of population of larger cities of United States in 1901—1903—7. 21 p.
- Executive civil service of United States, statistics of employees: 1904—12, 239 p.; 1907—94, 164 p.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p.
- Illiteracy in United States (study based on reports of Twelfth and preceding censuses)—26. 54 p.
- Increase of population: 1890 to 1900, discussion of—4. 63 p.
- Industrial districts: 1905. Manufactures and population—101. 81 p.
- Insane and feeble-minded in institutions: 1910—119. 99 p.
- Insular and municipal finances in Porto Rico for fiscal year 1902—3—24. 31 p.
- Irrigation in United States: 1902—16. 92 p.
- Marriage and divorce: 1887—1906—96. 71 p.
- Mineral industries of Porto Rico: 1902—6. 18 p.
- Mines and quarries: 1902—9. 59 p.
- Mortality statistics: 1908—104, 133 p.; 1910—109, 191 p.; 1911—112, 142 p.
- Municipal electric fire alarm and police patrol systems: 1902—11. 33 p.
- Paupers in almshouses: 1910—120. 99 p.
- Population of Oklahoma and Indian Territory: 1907—89. 43 p.
- Prisoners and juvenile delinquents: 1910—121. 130 p.
- Proportion of children in United States (study based on reports of Twelfth and preceding censuses)—22. 27 p.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding censuses)—14. 51 p.
- Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p.
- Statistics of cities having population of 8,000 to 25,000: 1903—45. 231 p.
- Statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p.
- Statistics of cities having population of over 30,000: 1904—50, 209 p.; 1907 (abstract of annual report)—105, 94 p.; 1912—118, 83 p.; 1913—126, 73 p.
- Supervisors' districts for Thirteenth Census: 1910—98. 19 p.
- Teachers, statistics (study based on reports of Twelfth and preceding censuses)—23. 20 p.
- Telegraph systems: 1907—102. 47 p.
- Telephones and telegraphs: 1902—17, 49 p.; 1912—123, 26 p.
- Transportation by water: 1906. United States—91. 57 p.
- Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p.

^a The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

Wealth, debt, and taxation.

National and State indebtedness and funds and investments: 1870-1913. 203 p.
National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1913. 44 p.

Taxation and revenue systems of State and local governments: 1913. 275 p.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

Agricultural implements—75. 31 p.

Automobiles and bicycles and tricycles—60. 37 p.

Boots and shoes, leather, and leather gloves and mittens—72. 81 p.

Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p.

Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p.

Carriages and wagons, and steam and street railroad car industry—84. 75 p.

Chemicals and allied products—92. 124 p.

Copper, lead, and zinc, smelting and refining—86. 32 p.

Coke—65. 57 p.

Electrical machinery, apparatus, and supplies—73. 73 p.

Glass and clay products—62. 107 p.

Iron and steel and tin and terne plate—78. 105 p.

Lumber and timber products—77. 69 p.

Metal-working machinery—67. 18 p.

Musical instruments, attachments, and materials—82. 34 p.

Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p.

Petroleum refining—70. 57 p.

Power employed in manufactures—88. 27 p.

Printing and publishing—79. 133 p.

Shipbuilding—81. 29 p.

Tobacco—87. 33 p.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

United States—57. 93 p.

Alabama—43. 23 p.

Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p.

California, Oregon, and Washington—49. 73 p.

Colorado, Idaho, Nevada, and Utah—37. 49 p.

Connecticut—42. 39 p.

Delaware—31. 15 p.

Florida—33. 17 p.

Georgia—55. 23 p.

Illinois—52. 53 p.

Indiana—38. 37 p.

Iowa—32. 27 p.

Kansas—28. 25 p.

Kentucky and Tennessee—47. 45 p.

Louisiana, Mississippi, and Texas—48. 57 p.

Maine—51. 25 p.

- Maryland and District of Columbia—27. 33 p.
 Massachusetts—53. 79 p.
 Michigan—18. 35 p.
 Minnesota—46. 27 p.
 Missouri and Arkansas—35. 47 p.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p.
 Nebraska—29. 19 p.
 New Hampshire and Vermont—41. 35 p.
 New Jersey—54. 53 p.
 New York—59. 101 p.
 North Carolina and South Carolina—39. 37 p.
 Ohio—58. 61 p.
 Pennsylvania—60. 81 p.
 Rhode Island—36. 29 p.
 Virginia and West Virginia—44. 43 p.
 Wisconsin—56. 39 p.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

- No. 1. Pulp-wood consumption: 1908, 12 p.; 1909, 15 p.; 1910, 10 p.; 1911, 10 p.
 No. 2. Lumber, lath, and shingles: 1908, 57 p.; 1909, 63 p.; 1910, 45 p.; 1911, 45 p.; 1912, 61 p.
 No. 3. Slack cooperage stock: 1907, 11 p.; 1909, 14 p.; 1911, 8 p.
 No. 4.^a Tanbark and tanning extracts: 1907, 10 p.; 1908, 10 p.; 1909, 14 p.
 No. 4. Excelsior: 1911, 4 p.
 No. 5. Veneers: 1907, 9 p.; 1908, 13 p.; 1909, 23 p.; 1911, 8 p.
 No. 6. Tight cooperage stock: 1907, 11 p.; 1909, 14 p.; 1911, 12 p.
 No. 7. Wood distillation: 1907, 8 p.; 1909, 11 p.; 1910, 5 p.; 1911, 6 p.
 No. 8. Crossties purchased: 1907, 6 p.; 1908, 8 p.; 1909, 11 p.; 1910, 8 p.; 1911, 8 p.
 No. 9. Poles purchased: 1907, 8 p.; 1908, 8 p.; 1909, 14 p.; 1910, 7 p.; 1911, 7 p.
 No. 10.^b Forest products of United States: 1908, 137 p.; 1909, 178 p.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.);

^a This pamphlet was not issued for 1910 and 1911.

^b No. 10 is a consolidation, without change, of Nos. 1 to 9.

New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish; both editions are now exhausted. Three bulletins, compiled from these reports, in English only, are, however, available.

No. 1. Population of the Philippines. 100 p.

No. 2. Climate of the Philippines. 103 p.

No. 3. Volcanoes and seismic centers of the Philippine Archipelago. 80 p.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand in the United States for information regarding Cuba the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

Cuba: Population, history, and resources: 1907 (compendium). 275 p. Cloth-bound, 50c.^a; paper-bound, 35c.^a

Vital statistics.

Index of joint causes of death: 1914. 308 p.

International classification of causes of sickness and death: 1910. 146 p.

Legal importance of registration of births and deaths: 1908. 32 p.

Manual of international list of causes of death: 1911, 297 p.; 1913, 307 p.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p.

Physicians' pocket reference to international list of causes of death: 1910, 20 p.; 1913, 28 p.

Practical registration methods: 1903. 29 p.

Tuberculosis in United States: 1908. 67 p.

MISCELLANEOUS.

Annual report of Director, 1914. 29 p. [There are also available limited number of annual reports for each year since 1903, with the exception of 1904.]

American census taking. 34 p.

Census Office and coordination of statistics. 43 p.

Census publications: 1914 (complete descriptive and chronological lists of publications). 91 p.

^a Available only from Superintendent of Documents at price stated.

Collaboration in Federal and State statistical work. 73 p.
Cooperation and unification in Federal and State statistical work. 48 p.
History and growth of United States census: 1790-1890. 967 p.
Standard form for reporting financial statistics of public schools: 1911. 28 p.
Summary of State laws relating to delinquent classes: 1913. 346 p.
Tentative program of Bureau of the Census: 1914-1916. 8 p.
Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p.
Uniform accounts for systems of water supply: 1911. 44 p.
Uniform municipal accounting: 1906. 121 p.
Work of Permanent Census Bureau: 1902-1913. 31 p.

COAST AND GEODETIC SURVEY.

In addition to the annual report of the Superintendent, detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of geodesy, topography, hydrography, terrestrial magnetism, the tides, and related subjects; charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications are furnished without charge by the Division of Publications, Department of Commerce, and many of them, and also many of those of which the stock for general distribution is exhausted, may be purchased from the Superintendent of Documents, Government Printing Office, at the prices stated in this list.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in coast line or in depths in channels and harbors, and information relating to terrestrial magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey of the year 1908, inclusive, may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at all depositories of public documents and at many public libraries. For later publications the List of Publications issued by the Department should be consulted.

Coast Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes nearly 800 charts on different scales, for general or local use, covering the coast of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and coast-pilot notes relating to Alaska, the Philippine Islands, and Hawaii.

An Inside Route Pilot has been published covering the navigable waters from New York to Key West, and similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1913, to June 30, 1914. 132 p. 1 diag. 16 progress sketches. [There is also on hand a limited supply of annual reports, 1851 to 1913, except 1862, 1870, and 1896.^a]

GEODESY.

Longitude between America and Europe from signals through Atlantic cable; by B. A. Gould. Report for 1867, app. 6, p. 57-133.

Observations of eclipse of sun on Aug. 7, 1869, made by parties of Survey at following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under immediate direction of Superintendent of Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kookluk, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts, 3 pl. 16 fig. 1 map, 2 diag.

Observations upon total solar eclipse of Dec. 22, 1870. Report for 1870, app. 16. 25c.^b

Geographical positions of prominent places in United States determined astronomically or geodetically by Survey. Report for 1874, app. 6, p. 62-65. 5c.

Description of two forms of portable apparatus for determination of personal equation, both relative and absolute, in observations of star transits; by J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig. 1 diag. 5c.

Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal.; by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig. [Reprinted from Report for 1871, app. 16.^c]

Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^c

Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^c

^aThe Superintendent of Documents can supply copies of annual reports for 1848 to 1913, except 1896, at the following prices: 1848, 50c; 1849, 25c; 1850, 50c; 1851, pt. 1, 45c; 1851, pt. 2, 40c; 1852, 85c; 1853, 85c; 1854, \$1.10; 1855, \$1.15; 1856, \$1.15; 1857, \$1.25; 1858, \$1.10; 1859, \$1.10; 1860, \$1.10; 1861, 90c; 1862, \$1.15; 1863, \$1; 1864, \$1; 1865, \$1; 1866, 90c; 1867, 90c; 1868, 90c; 1869, 90c; 1870, 90c; 1871, 90c; 1872, 90c; 1873, 90c; 1874, \$1; 1875, \$1.20; 1876, \$1.25; 1877, \$1.20; 1878, \$1.20; 1879, \$1.20; 1880, \$1.20; 1881, \$1.20; 1882, \$1.25; 1883, \$1.20; 1884, \$1.20; 1885, \$1.20; 1886, \$1; 1887, \$1.10; 1888, \$1.20; 1889, \$1.75; 1890, \$1.30; 1891, pt. 1, \$1; 1891, pt. 2, 90c; 1892, pt. 1, 80c; 1892, pt. 2, 70c; 1893, pt. 1, \$1.60; 1893, pt. 2, 80c; 1894, pt. 1, \$1; 1894, pt. 2, \$1.15; 1895, \$1.60; 1897, \$1.70; 1898, \$1.60; 1899, \$1.60; 1900, \$1.90; 1901, \$1.20; 1902, \$1.10; 1903, \$1.35; 1904, \$1.40; 1905, \$1; 1906, \$1.25; 1907, \$1.75; 1908, \$1; 1909, \$1; 1910, \$1.10; 1911, \$1.35; 1912, 25c; 1913, 75c.

^bAvailable only from Superintendent of Documents at price stated.

^cAppendices 16-19 of report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Allied subjects."

Adaptation of triangulations to various conditions, depending on configuration or orographic character of country and on degree of accuracy aimed at, with due consideration of time and means available; also notes on method of observing horizontal angles and directions in geodetic surveys; by Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 fig. [Reprinted, with additions, from the Report for 1871, app. 15.]

Pamlico-Chesapeake arc of meridian and its combination with Nantucket and Peruvian arcs, for determination of figure of earth from American measures; by Charles A. Schott. Report for 1877, app. 6, p. 84-95. 5c.

Observations of transit of Mercury, May 6, 1878, made at Summit station. Central Pacific R. R.; by B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl. 1 sketch. 5c.

Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.

Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag. 5c.

Observations to determine refraction on lines passing near a surface of water, made at different elevations across Potomac River; by Andrew Braid. Report for 1879, app. 16, p. 212-213.

Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag. 5c.

Explanation of apparatus for observation of telegraphic longitudes, with directions for its use; by Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diag.

Geodesic night signals; by Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig. 1 pl. 1 diag.

Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag.

Perfect form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. 5c.

Meteorological researches: pt. 3. Barometric hypsometry and reduction of barometer to sea level; by William Ferrel. Report for 1881, app. 10, p. 225-268, 1 illus.

Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358. 5c.

Flexure of pendulum supports; by C. S. Peirce. Report for 1881, app. 14, p. 359-441.

Deduction of ellipticity of earth from pendulum experiments; by C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.

Method of observing coincidence of vibration of two pendulums; by C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 fig.

Value of gravity at Paris; by C. S. Peirce. Report for 1881, app. 17, p. 461-463.

Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag. 5c.

Measurement of Yolo base, Yolo County, Cal.; by George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig. 1 sketch, 2 diag.

Total solar eclipse of Jan. 11, 1880, observed at Mount Santa Lucia, Cal.; by George Davidson. Report for 1882, app. 20, p. 463-468, 2 diag.

New reduction of La Caille's observations, made at Cape of Good Hope and at Paris, 1749-1757, and given in his "Astronomiæ Fundamenta," together with a comparison of results with Bradley-Bessel "Fundamenta"; also catalogue of places of 150 stars south of declination -30° , for epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502. 5c.

Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 503-516.

Results for length of primary base line in Yolo County, Cal., 1881, by party of George Davidson; computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag. 5c.

- Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.**
- Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.**
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880; by Charles S. Peirce. Report for 1883, app. 19, p. 473-487. 10c.**
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- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment; by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.**
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- Report of George Davidson, appointed by President as delegate to 9th conference of International Geodetic Association held at Paris, October, 1889.** Report for 1889, app. 18, p. 493-503, 1 fig. 5c.
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- Geographical explorations.** Report for 1890, app. 19. 25c.*
- Determination of azimuth from micrometric observations of close circumpolar star near elongation by means of meridian transit, or of a theodolite with eyepiece micrometer.** Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report on method and example of computation by Charles A. Schott; observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull. 21.] 5c.
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- Same, abstract.** Bull. 25, p. 237-261, 2 diag. 1892. 10c.
- Variation of latitude at Waikiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association;** by E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl. 1 fig. 2 maps, 9 diag. 20c.
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- Results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations, 1890-91, by Isaac Winston and F. A. Young;** by Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224. 5c.

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- Measurement of Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va.** Report for 1892, pt. 2, app. 8, p. 329-503, 2 pl. 2 fig. 2 diag. 25c.
- Measure of irregularity in one turn of micrometer screw, and relative value of each turn; by George Davidson.** Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag. 5c.
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- Results of observations for variations of latitude at Waikiki, Hawaii, in cooperation with work of International Geodetic Association; by E. D. Preston.** Bull. 27, p. 6-20, 2 diag. 1893. 5c.
- Constant of aberration as determined from discussion of results for latitude at Waikiki, Hawaii; by E. D. Preston.** Bull. 28, p. 21-34, 1 diag. 1893. 5c.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations; by G. R. Putnam. Also report on geologic examination of some Survey gravity stations; by G. K. Gilbert.** Report for 1894, pt. 2, app. 1, p. 7-55, 6 fig. 1 diag. 15c.
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- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va.,** from observations made by J. B. Weir, Sept.-Nov., 1884, and by I. Winston, Dec., 1891-Feb., 1892; by C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map. 5c.
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C.,** from observations by J. B. Weir, Sept. and Oct., 1883, and Sept. and Oct., 1884, with releveling by J. B. Weir between Richmond and Fredericksburg, Va., May and June, 1886, and verification leveling between the two cities by I. Winston, Apr.-June, 1895; by Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map. 5c.
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- Telegraphic longitude net of United States and its connection with that of Europe, 1866-1896;** by Charles A. Schott. Report for 1897, app. 2, p. 197-261, 1 map.
- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska,** as determined chronometrically from Sitka in 1896, by party under charge of Fremont Morse; by Charles A. Schott. Report for 1897, app. 3, p. 263-268. 5c.
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- Measurement of Salt Lake base line in Utah;** by William Elmbeck. Report for 1897, app. 12, p. 753-774, 1 fig. 6 pl. 1 map, 2 diag.
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- Inquiry into relative value and need of check of Peruvian arc of 1736-1743;** by Charles A. Schott. Report for 1898, app. 4, p. 229-232.
- Physical observations made in connection with the Pribilof Islands survey of 1897;** by G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig. 1 map.
- Report on proceedings of International Geodetic Association Conference at Stuttgart, Germany, Oct. 3-12, 1898, and on geodetic operations in United States;** by E. D. Preston, delegate on part of United States. Report for 1898, app. 6, p. 243-260, 1 pl. 3 maps.
- International Geodetic Association for measurement of the earth;** by Erasmus D. Preston, delegate on part of United States at 12th general conference. Report for 1899, app. 3, p. 241-269, 1 map. 10c.
- Determinations of gravity at Polytechnic Institute, Worcester, Mass., and Columbia University, New York City,** with pendulum apparatus B; by Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 fig. 5c.
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo.,** from observations by Isaac Winston, May 12-Oct. 21, 1899; by Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig. 5c.
- Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr.,** from observations by A. L. Baldwin and B. E. Tilton, May 8-Oct. 17, 1899; by B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig. 5c.

- Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson, June 3–Nov. 28, 1899; report by O. W. Ferguson. Report for 1899, app. 7, p. 321–345, 1 fig. 5c.
- Precise leveling in United States; by John F. Hayford. Report for 1899, app. 8, p. 347–886, 8 pl. 3 fig. 2 maps. 40c.
- Oblique boundary line between California and Nevada; by C. H. Sinclair. Report for 1900, app. 3, p. 255–484, 32 pl. 121 fig. 15 maps. 60c.
- International latitude service at Gaithersburg, Md., and Ukiah, Cal., under auspices of International Geodetic Association; by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495–520, 2 pl. 1 fig. 2 maps, 2 diag. 10c.
- Transcontinental triangulation and American arc of parallel; by Charles A. Schott. Special publication 4. 871 p. 17 pl. 2 fig. 4 maps, 33 diag. 1900. \$1.60.
- Table of coefficients for reducing inclined sights on vertical rod to horizontal distance. 4 p. 1900.
- Table showing height in meters, corresponding to given angles of elevation and distances in meters. 4 p. 1900.
- Measurement of nine base lines along 98th meridian; by A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229–302.
- Extension of tables for computation of geodetic positions to Equator; by John F. Hayford. Report for 1901, app. 4, p. 303–339. 10c.*
- Triangulation northward along 98th meridian in Kansas and Nebraska; by John F. Hayford. Report for 1901, app. 6, p. 357–423.
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- Eastern oblique arc of United States and osculating spheroid; by Charles A. Schott. Special publication 7. 394 p. 12 pl. 2 maps, 25 diag. 1902. 90c.
- Precise leveling in United States, 1900–1903, with readjustment of level net and resulting elevations; by J. F. Hayford. Report for 1903, app. 3, p. 189–810, 2 views, 14 maps and sketches, 6 diag. 40c.
- Triangulation southward along the 98th meridian in 1902; by J. F. Hayford. Report for 1903, app. 4, p. 811–930, 5 views, 5 maps and sketches, 5 diag.
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- Precise leveling from Holland to New Braunfels, Tex., 1903; by J. F. Hayford. Report for 1904, app. 7, p. 433–450. 5c.
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- Triangulation in California: pt. 1; by A. L. Baldwin. Report for 1904, app. 9, p. 491–764, 21 illus. 35c.
- Precise leveling from Red Desert, Wyo., to Seattle, Wash., 1903–4; by J. F. Hayford. Report for 1905, app. 4, p. 193–241.
- Triangulation along 98th meridian, Lampasas to Seguin, Tex.; by J. F. Hayford. Report for 1905, app. 5, p. 243–282, 2 diag. 15c.
- Six primary bases measured with steel and invar tapes; by O. B. French. Report for 1907, app. 4, p. 105–156. 15c.
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- Figure of earth and isostasy from measurements in United States; by J. F. Hayford. 178 p. 6 maps, 11 diag. 1909. \$1.35.

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- Geodetic operations in United States, 1906-1909—Report to 16th general conference of International Geodetic Association; by O. H. Tittmann and J. F. Hayford. 11 p. 5c.
- Supplementary investigation of figure of earth and isostasy, 1909; by J. F. Hayford. 80 p. 5 maps, 1 diag. 85c.
- Primary base lines at Stanton, Tex., and Deming, N. Mex.; by William Bowie. Report for 1910, app. 4, p. 143-171, 5 text fig.
- Triangulation in California: pt. 2; by C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diag.
- Measurement of flexure of pendulum supports with interferometer; by W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text fig.
- Formule and tables for computation of geodetic positions. 5th ed., with preface by C. R. Duvall. Special publication 8. 91 p. 1911. 15c.
- Effect of topography and isostatic compensation upon intensity of gravity; by John F. Hayford and William Bowie. Special publication 10. 132 p. 11 text fig. 9 charts. 1912. 35c.
- Same, second paper; by William Bowie. Special publication 12. 28 p. 5 charts 1912. 40c.
- Triangulation along 98th meridian, Nebraska to Canada, and connection with Great Lakes; by William Bowie. Report for 1911, app. 4, p. 161-342, 12 text fig. 40c.
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- Geodetic operations in United States, 1909-1912—Report to 17th general conference of International Geodetic Association; by O. H. Tittmann. 18 p. 3 pl.
- The California-Washington arc of primary triangulation; by A. L. Baldwin. Special publication 13. 78 p. 7 maps. 1913. 15c.
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- Primary triangulation on 104th meridian, and on 39th parallel in Colorado, Utah, and Nevada; by William Bowie. Special publication 19. 163 p. 10 pl. 11 maps. 1914. 25c.
- Precise leveling from Brigham, Utah, to San Francisco, Cal.; by William Bowie. Special publication 22. 67 p. 5 text fig. 1914. 15c.

HYDROGRAPHY.

- Abstract of paper read before National Academy of Sciences, Apr. 16, 1869, on earthquake wave of Aug. 14, 1868; by J. E. Hilgard. Report for 1869, app. 13, p. 233-234. 5c.
- Tidal researches; by William Ferrel. 282 p. 13 fig. 1874.
- Discussion of tides in New York Harbor. Report for 1875, app. 12. 5c.*
- Location of quay or pier line in vicinity of United States navy yard at New York; by Henry Mitchell. Report for 1876, app. 11, p. 186-189, 1 sketch.
- Description of optical densimeter for ocean water; by J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig. 5c.
- Observations of density of waters of Chesapeake Bay and its principal estuaries; report by Frederick Collins. Report for 1877, app. 14, p. 184-190, 2 fig.

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- Physical hydrography of Gulf of Maine; by Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig. 2 diag. 5c.
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- Comparison of survey of Delaware River of 1819, between Pettys and Tinicum Islands, with more recent surveys; by Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diag.
- Discussion of tides of Pacific coast of United States; by William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diag.
- Report on Siemens electrical deep-sea thermometer; by J. R. Bartlett. (Accompanied by description of apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 fig. 2 diag. 5c.
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- Same, abstract. Bull. 3, p. 7-12, 2 maps. 1888. 15c.

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- Hydrographic notes, sailing directions, and charts of surveys relating to vicinity of Prince William Sound, Cook Inlet, Kadiak Island, and route from Unalaska to Chignik, through Unimak Pass and inside islands, 1897; by J. F. Moser.** Published through courtesy of Fish Commission. Bull. 38, p. 119-142, 6 maps. 25c.

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- Channel and harbor sweep; by D. B. Wainwright. Report for 1903, app. 6, p. 1005-1010, 1 view.
- Manual of tides: pt. 4b, Cotidal lines for world; by R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus. 30c.
- Long-wire sweep; by D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diag.
- Manual of tides: pt. 5, Currents, shallow-water tides, meteorological tides, and miscellaneous matters; by R. A. Harris. Report for 1907, app. 6, p. 231-546, 22 diag. 7 charts. 60c.
- Long-wire drag; by N. H. Heck. rev. ed. Special publication 21. 31 p. 7 pl. 12 text fig. 20c.
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- Alaska—Coast pilot notes from Yakutat Bay to Cook Inlet and Shellkof Strait. 2d ed. 1910. 82 p. 10c.^a
- Alaska—Coast pilot notes on Bering Sea and Arctic Ocean. 1908. 65 p. (Replaces Bull. 40.) With supplement. 20c.^a
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Chart catalogues.

- Catalogue of charts, coast pilots, and tide tables, 1914. 230 p. 87 text fig.
- Catalogue of charts, sailing directions, and tide tables of Philippine Islands. 1914. 44 p. 22 text fig.

Sailing directions for the Philippine Islands.

- Philippine Islands—Sailing directions: sec. 3, Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.
- Same, sec. 4, Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 p.

Notice to mariners.

- Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

- Type forms of topography, Columbia River; by E. Hergeshelmer. Report for 1881, app. 7, p. 124-125, 7 fig. 1 map.
- Proceedings of Topographical Conference, Washington, D. C., Jan. 18-Mar. 7, 1892. Report for 1891, pt. 2, app. 16. p. 565-746, 2 pl. 25 fig. 1 map, 5 diag. 25c.
- Phototopography as practiced in Italy under auspices of Royal Military Geographical Institute, and as practiced in Dominion of Canada under auspices of Department of Interior; also short historical review of other photographic surveys and publications on subject. By J. A. Flemer, assistant. Report for 1893, app. 3, p. 37-116. 10c.
- Subdivision 1. List of original topographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834-Dec. 31, 1895; nos. 1-2209. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834-Dec. 31, 1895; nos. 1-2222. Report for 1895. app. 11, p. 399-516.

TERRESTRIAL MAGNETISM.

- New discussion of distribution of magnetic declination on coast of Gulf of Mexico, with chart of isogonic curves for 1860; by Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^c 5c.
- Development of Bessel's function for effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.

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^b Available only from Coast and Geodetic Survey or its agencies at price stated.

^c Bound with app. 6, 17, 18, 19, 20, 21, and 25 of Report for 1861.

- Report on results from observations made at magnetical observatory, Capitol Hill, Washington, D. C., 1867-1869; by Charles A. Schott. Report for 1869, app. 9, p. 190-207.
- On chart of magnetic declination in United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400-401, 1 map. 5c.
- On secular change of magnetic declination in United States and at some foreign stations; by Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.
- Inquiry into variation of compass off Bahama Islands, at time of landfall of Columbus in 1492; by Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map.
- Collection of results for declination, dip, and intensity, from observations made by Survey, 1833-1882, July; by Charles A. Schott. Report for 1881, app. 9, p. 159-224.
- Secular variation of magnetic declination in United States and at some foreign stations; by Charles A. Schott, assistant. Report for 1882, app. 12, p. 211-276.
- Records and results of magnetic observations made at charge of "Bache fund" of National Academy of Sciences, 1871-1876; under direction of J. E. Hilgard, M. N. A. S., by H. W. Blair. Report for 1882, app. 14, p. 329-426.
- Account and results of magnetic observations made under direction of Survey in cooperation with United States Signal Office, at United States polar station Ooglaamie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 fig. 1 map.
- Geographical distribution and secular variation of magnetic dip and intensity in United States; by Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diag. 15c.
- Collection of some magnetic variations off coasts of California and Mexico, observed by Spanish navigators in last quarter of 18th century; communicated by George Davidson. Report for 1885, app. 7, p. 275-284. 5c.
- Magnetic work of Greely arctic expedition, 1881-1884; abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210.
- Value of "Arcano del mare" with reference to our knowledge of magnetic declination in earlier part of 17th century; by Charles A. Schott. Bull. 5, p. 25-28, 2 maps. 1888.
- Secular variation in position of agonic line of North Atlantic and of America, between epochs 1500 and 1900 A. D.; by Charles A. Schott. Bull. 6, p. 29-43, 3 maps. 1888. 25c.
- Historical review of work of Survey in connection with terrestrial magnetism; by Charles A. Schott. Bull. 7, p. 35-40, 4 maps. 1888. 30c.
- Secular variation of magnetic declination in United States and at some foreign stations; by Charles A. Schott. Report for 1888, app. 7, p. 177-312.
- Distribution of magnetic declination in United States for epoch 1890; by Charles A. Schott. 2d ed. Report for 1889, app. 11, p. 233-402, 3 maps, 1 diag. 10c.
- Magnetic observations made on Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730. Bull. 20, p. 211-214. 1891. 5c.
- Results of observations made at Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, 1882-1889: pt. 1, Results of absolute measures of direction and intensity of earth's magnetic force; discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241. 10c.
- Same, pt. 2, Results of differential measures of magnetic declination: discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diag. 20c.
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- Same, pt. 4, Results of differential measures of vertical force component, and of variations of dip and total force; discussion and report by Charles A. Schott. Report for 1892, pt. 2, app. 7, p. 253-327, 2 diag. 10c.

Terrestrial magnetism. Report for 1891, app. 5. 5c.*

Secular variation and annual change of magnetic force at stations occupied by E. D. Preston, in connection with United States eclipse expedition to West Coast of Africa, 1889-90, in charge of D. P. Todd; discussion and report by C. A. Schott. Submitted for publication Mar. 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-39. 5c.

Same, abstract. Bull. 23, p. 225-232. 1891. 5c.

Magnetic observations made during Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730; discussion by C. A. Schott. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report for 1891, pt. 2, app. 5, p. 269-273.

Results of magnetic observations at stations in Alaska and in northwest territory of Dominion of Canada; observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, 1889, 1890, and 1891; discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map. 5c.

Distribution of magnetic declination in Alaska and adjacent waters for 1895, and construction of isogonic chart for same epoch; by C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps. 10c.

Same, abstract. Bull. 34, p. 127-134. 1895.

Secular variation in direction and intensity of earth's magnetic force in United States and in some adjacent foreign countries; by Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag. 25c.

Direction and intensity of earth's magnetic force at San Francisco, Cal.; by C. A. Schott. Bull. 33, p. 121-126. 1895. 5c.

Distribution of magnetic declination in United States for epoch Jan. 1, 1900; by Charles A. Schott. 3d ed. Report for 1896, app. 1, p. 147-235, 3 illus. 15c.

Distribution of magnetic dip and magnetic intensity in United States for epoch Jan. 1, 1900; by Charles A. Schott. 2d ed. Report for 1897, app. 1, p. 159-196, 3 maps. 15c.

Results of magnetic observations made in connection with Greenland expedition of 1896, under charge of A. E. Burton; by G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag. 5c.

California, Bay of San Francisco—Magnetic ranges for determining deviation of compass, with short explanations of how to find deviation and error of compass; arranged and compiled by J. C. Gilmore. Special publication 1. 7 p. 5 pl. 1 map. 1898.

General report upon magnetic survey of North Carolina, with a brief historical sketch of fundamental phenomena of earth's magnetism; by James B. Baylor and Daniel L. Hazard, under direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pl. 2 maps. 15c.

Magnetic work of Survey; by L. A. Bauer. Report for 1899, app. 10, p. 939-952. 5c.

Magnetic survey of North Carolina—Values of magnetic declination at county seats, 1750-1910; by D. L. Hazard. Bull. 41, p. 1-12. 1901.

Magnetic observatories of Survey in operation July 1, 1902; by L. A. Bauer and J. A. Fleming. Report for 1902, app. 5, p. 301-331, 8 views, 3 maps and sketches, 5 diag.

Magnetic dip and intensity observations, Jan., 1897-June 30, 1902; by D. L. Hazard, with preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views. 10c.

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Distribution of magnetic declination in Alaska and adjacent regions for 1910; by R. L. Faris. Report for 1909, app. 4, p. 151-179, 8 fig. 1 map. 10c.**Principal facts of earth's magnetism, and methods of determining true meridian and magnetic declination. (Reprinted from United States magnetic declination tables and isogonic charts for 1902.) 99 p. 1 map, 9 illus. 18 fig. 1913.****Directions for magnetic measurements; by D. L. Hazard. 131 p. 10 fig. 1911. 15c.****Distribution of magnetic declination in United States for Jan. 1, 1910, with isogonic chart and secular change tables; by R. L. Faris. Special publication 9. 14 p. 1 map. 10c.****Magnetic tables and magnetic charts. \$1.⁰⁰****CHART CONSTRUCTION.****Quincuncial projection of sphere; by C. S. Peirce. Report for 1877, app. 15, p. 191-192, 1 map.****Notes on original manuscript chart of Bering's expedition of 1725-1730, and on original manuscript chart of his second expedition; together with summary of**

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journal of first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version. By William Healey Dall. Report for 1890, app. 19, p. 759-774, 2 maps.

Tables for polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 3d ed. Special publication 5. 189 p. 1 chart. 1910. [Replaces app. 6, Report for 1884.]

ALLIED SUBJECTS.

Nicaragua route for interoceanic ship canal, with review of other proposed routes; by Maximilian Von Sonnenstern to minister of public works of Nicaragua. Translated for Survey. 22 p. 1 map. 1874.

Hypsometric formula based upon thermodynamic principles; by Chas. A. Schott. Report for 1876, app. 19, p. 388-390.^a

Relation of lawful standards of measure of United States to those of Great Britain and France; by J. E. Hilgard. Report for 1876, app. 22, p. 402-406.

Blue clay of Mississippi River; by George Little. Report for 1880, app. 12, p. 145-171, 1 sketch. 10c.

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Resources of and developments in Alaska; by George Davidson. Bull. 4, p. 13-24. 1888.

Relation between metric standards of length of Coast and Geodetic Survey and Lake Survey; by C. A. Schott and O. H. Tittmann. Bull. 17, p. 165-173. 1889. 5c.

Report in relation to portion of boundary line in dispute between the States of Maryland and Virginia; by Henry L. Whiting. Report for 1890, app. 11, p. 621-623. 5c.

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Least square adjustment of weighings—Report prepared by direction of O. H. Tittmann, assistant, in charge of Office of Standard Weights and Measures; by John F. Hayford. Report for 1892, app. 10, p. 515-527. 5c.

State laws authorizing officers of Survey to enter upon lands within State limits for purposes of the Survey. Report for 1893, app. 1, p. 1-18.

Boundary line between Pennsylvania and Delaware: pt. 1, Historical account of boundary line; pt. 2, Detailed account of work on boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig. 3 maps, 2 facsim. 10c.

Preparation and arrangement of exhibit of Survey at World's Columbian Exposition; by D. B. Wainwright. Report for 1893, app. 10, p. 425-439. 5c.

Units of electrical measure. Approved for publication Dec. 27, 1893. Bull. 30, p. 99-104. 5c.

Legal units of electrical measure in United States. Approved Aug. 12, 1894. Bull. 31, p. 105-108. 5c.

General statement of administration and work of Survey, with historical sketch, 1807-1898; by H. S. Pritchett. Extract from report of Superintendent for 1897-98, p. 21-28, 1 sketch.

Hawaiian geographic names. Report for 1902, app. 7. 15c.^b

List and catalogue of publications issued by Survey, 1816-1902, with supplement, 1903-1908; by E. L. Burchard and R. M. Brown. 237+44 p.

Same. Supplement to Aug., 1908.

^a Appendixes 16-19 of report for 1876 are bound under one cover. Appendixes 16-18 are listed under the heading "Geodesy."

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Coast and Geodetic Survey in Alaska. 8 p. 1909. 5c.

Work of Survey. 2d ed. 47 p. 5 illus. 1 diag. 1909. 10c.

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Upon the organization of the Federal Trade Commission, authorized by the act of Congress approved September 26, 1914, the Bureau of Corporations will cease to exist, and all pending investigations and proceedings of the Bureau of Corporations will be continued by the Federal Trade Commission, to whom should then be addressed applications for publications issued by the former Bureau of Corporations.

In addition to the annual report of the Commissioner of Corporations, which gives a statement of the work during the fiscal year and recommendations as to governmental policy regarding corporations, corporate combinations, etc., the Bureau issues special reports from time to time regarding the corporations, corporate combinations, and other matters which have been investigated by the Bureau, in accordance with the law establishing it.

Special reports issued by the Bureau include the results of investigations of the beef, petroleum, steel, lumber, and tobacco industries, transportation of petroleum, cotton exchanges, cotton tare, transportation by water, water-power development, the International Harvester Co., and the taxation of corporations.

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Same, pt. 2, Middle Atlantic States [New York, New Jersey, Pennsylvania, Delaware, Maryland, and District of Columbia]. June 6, 1910. 128 p. 15c.^b

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- Special report on taxation,** supplementing previous reports on taxation of corporations and covering tax movement throughout United States during 1912. Dec., 1913. 478 p. 30c.^a
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Since 1904 the publications of the Bureau of Fisheries have been issued under a plan somewhat different from that previously followed.

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1907. January, February, March, April, May, June, July, August, September, October, November, December.

1908. January, February, March, April, May, June, July, August, September, October, November, December.

1909. January, February, March, April, May, June, July, August, September, October, November, December.

1910. January, February, March, April, May, June, July, August, September, October, November, December.

1911. January, February, March, April, May, June, July, August, September, October, November, December.

1912. January, February, March, April, May, June, July, August, September, October, November, December.

Monthly summary of foreign commerce of United States—Continued.

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1914. January, February, March, April, May, June, July, August, September, October.

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- Annual report of commissioner, 1914. 102 p. [There are also on hand limited supply of each of annual reports since 1873, except those for 1879, 1881, 1882, 1883, and 1886.]
- Report upon fog-signal experiments; by Maj. William R. Livermore, Corps of Engineers, U. S. A. 376 p. 74 pl. 1894.
- Aberrations of audibility of fog signals; by Arnold B. Johnson, chief clerk, Lighthouse Board. 16 p. 1 pl. 1885.
- History of application of electric light to lighting coasts of France; by Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 p. 25 pl. 1883.
- Memoir upon lighthouse illumination of coasts of France. (Reynaud.) Translated by Rear Admiral Thornton A. Jenkins, U. S. N., naval secretary, Lighthouse Board. 144 p. illus. 1871.
- Report upon exhibit of Lighthouse Board at World's Columbian Exposition, Chicago, 1893; by A. B. Johnson, chief clerk, Lighthouse Board. 42 p. illus.
- Regulations for lighting bridges, 1914. 14 p. 5 pl.
- Whitewash and cement-wash formulas. 1 p.

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231. Specific heat of copper in interval 0° to 50° C., with note on vacuum-jacketed calorimeters; by D. R. Harper, 3d. 73 p. 5 text fig. 3 pl. 1 paster. 25c.
232. Equilibrium in the system: Lead acetate, lead oxide, and water, at 25°; by Richard F. Jackson. 17 p. 1 diag. 5c.
236. Electrical resistance and critical ranges of pure iron; by G. K. Burgess and I. N. Kellberg. 16 p. 3 text fig. 5c.
237. Absorption, reflection and dispersion constants of quartz; by W. W. Coblenz. 13 p. 2 text fig. 5c.

TECHNOLOGIC PAPERS.

1. Effect of preliminary heating treatment upon drying of clays; by A. V. Bleininger. Dec. 6, 1910. 53 p. 1 pl. 12 text fig. 10c.^a
2. Strength of reinforced concrete beams. Results of tests of 333 beams (1st series). By R. L. Humphrey and L. H. Losse. June 27, 1911. 200 p. 11 pl. 11 charts, 33 text fig. 50c.
3. Tests of absorptive and permeable properties of Portland cement mortars and concretes, together with tests of damp-proofing and waterproofing compounds and materials; by R. J. Wig and P. H. Bates. Aug. 22, 1911. 127 p. 6 pl. 64 text fig. 20c.
4. Effect of added fatty and other oils upon carbonization of mineral lubricating oils; by C. E. Waters. Aug. 24, 1911. 14 p. 5c.
5. Effect of high-pressure steam on crushing strength of Portland cement mortar and concrete; by R. J. Wig. Sept. 5, 1911. 25 p. 2 pl. 6 text fig. 10c.
6. Determination of chromium, and its separation from vanadium, in steels; by J. R. Cain. Nov. 1, 1911. 6 p. 5c.
7. Testing of clay refractories, with special reference to their load-carrying capacity at furnace temperatures; by A. V. Bleininger and G. H. Brown. Dec. 15, 1911. 78 p. 30 text fig. 15c.
8. Rapid method for determination of vanadium in steels, ores, etc., based on its quantitative inclusion by phosphomolybdate precipitate; by J. R. Cain and J. C. Hostetter. Oct. 26, 1911. 20 p. 2 text fig. 5c.
9. Density and thermal expansion of linseed oil and turpentine; by Henry W. Bearce. Apr. 15, 1912. 27 p. 10c.
10. Melting points of fire bricks; by C. W. Kanolt. June 15, 1912. 17 p. 2 pl. 3 text fig. 5c.

^a Available only from Superintendent of Documents at price stated.

11. Comparison of five methods used to measure hardness; by Ralph P. Devries. July 22, 1912. 27 p. 1 pl. 11 text fig. 5c.
12. Action of salts in alkali water and sea water on cements; by P. H. Bates, A. J. Phillips, and R. J. Wig. Nov. 1, 1912. 157 p. 8 pl. 45 text fig. 25c.
13. Evaporation test for mineral lubricating and transformer oils; by C. E. Waters. Jan. 1, 1913. 13 p. 5c.
14. Legal specifications for illuminating gas; by E. B. Rosa and R. S. McBride. Jan. 10, 1913. 31 p. 10c.^a
15. Surface insulation of pipes as means of preventing electrolysis; by Burton McCollum and O. S. Peters (with experience and opinions of pipe-owning companies with regard to prevention of electrolysis and soil corrosion by means of insulating coatings). Jan. 5, 1914. 44 p. 3 pl. 2 text fig. 15c.
16. Manufacture of lime; by Warren E. Emley. Feb., 1913. 130 p. 13 pl. 8 text fig. 25c.
17. Function of time in vitrification of clays; by G. H. Brown and G. A. Murray. May 20, 1913. 26 p. 1 pl. 19 text fig. 5c.
18. Electrolysis in concrete; by E. B. Rosa, Burton McCollum, and O. S. Peters. Mar. 19, 1913. 137 p. 9 pl. 24 text fig. 20c.^a
19. Physical testing of cotton yarns; by Walter S. Lewis. Apr. 1, 1913. 31 p. 1 text fig. 10c.
20. Determination of sulphur in illuminating gas; by R. S. McBride and E. R. Weaver. Mar. 7, 1913. 46 p. 14 text fig. 10c.
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22. Effect of overfiring upon structure of clays; by A. V. Bleininger and E. T. Montgomery. May 15, 1913. 23 p. 8 text fig. 5c.
23. Technical control of colloidal matter of clays; by H. E. Ashley. Nov., 1911. 118 p. 8 pl. 11 text fig. 15c.
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25. Electrolytic corrosion of iron in soils; by Burton McCollum and K. H. Logan. June 12, 1913. 69 p. 10 text fig. 15c.
27. Special studies in electrolysis mitigation. 1. Preliminary study of conditions in Springfield, Ohio, with recommendations for mitigation. By E. B. Rosa and Burton McCollum. June 19, 1913. 55 p. 3 maps, 6 text fig. 15c.
29. Variations in results of sieving with standard cement sieves; by R. J. Wig and J. C. Pearson. Aug. 1, 1913. 16 p. 1 text fig. 5c.
30. Viscosity of porcelain bodies; by A. V. Bleininger and Paul Teetor. Nov. 20, 1913. 11 p. 5 text fig. 5c.
31. Some leadless borosilicate glazes maturing at about 1100° C.; by E. T. Montgomery. Dec. 15, 1913. 22 p. 1 text fig. 5c.
32. Special studies in electrolysis mitigation. 2. Electrolysis from electric railway currents and its prevention, experimental test on system of insulated negative feeders in St. Louis. By E. B. Rosa, Burton McCollum, and K. H. Logan. Dec. 27, 1913. 34 p. 2 maps. 5c.
33. Determination of carbon in steel and iron by barium carbonate titration method; by J. R. Cain. Jan. 31, 1914. 12 p. 1 text fig. 5c.
34. Determination of ammonia in illuminating gas; by J. D. Edwards. Mar. 2, 1914. 23 p. 6 text fig. 10c.
35. Combustion method for direct determination of rubber; by L. G. Wesson. Feb. 13, 1914. 11 p. 1 text fig. 5c.
36. Industrial gas calorimetry; by C. W. Waldner and E. F. Mueller. Mar. 1, 1914. 150 p. 18 pl. 13 text fig. 40c.
37. Iodine number of linseed and petroleum oils; by W. H. Smith and J. B. Tuttle. Apr. 28, 1914. 17 p. 7 text fig. 10c.
38. Observations on finishing temperatures and properties of rails; by G. K. Burgess, J. J. Crowe, H. S. Rawdon, and R. G. Waltenberg. Apr. 28, 1914. 63 p. 5 pl. 11 text fig. 35c.

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- 39. Analysis of printing inks; by J. B. Tuttle and W. H. Smith. June 12, 1914. 20 p. 10c.
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- 42 Standardization of No. 200 cement sieves; by Rudolph J. Wig and J. C. Pearson. July 30, 1914. 51 p. 4 pl. 1 text fig. 10c.

BUREAU CIRCULARS.

- 2. Measurements of length and area, including thermal expansion. 4th ed. rev. and enl. May 1, 1912. [Supersedes 3d ed. of Cir. 2, Metal tapes.] 21 p. 5c.*
- 5. Testing of clinical thermometers. 2d ed. rev. June 30, 1911. 14 p. 5c.
- 6. Fees for electric, magnetic, and photometric testing. 6th ed. rev. Oct. 1, 1914. 27 p. 10c.
- 7. Pyrometer testing and heat measurements. 5th ed. rev. Oct. 1, 1913. 19 p. 5c.
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- 9. Testing of glass volumetric apparatus. 7th ed. rev. Oct. 1, 1914. 31 p. 10 text fig. 10c.
- 10. Legal weights (in pounds) per bushel of various commodities. 2d ed. rev. May 15, 1911. 10 p. 5c.*
- 11. Standardization of bomb calorimeters. May 15, 1911. 10 p. 5c.
- 13. Standard specifications for incandescent electric lamps. 6th ed. rev. Jan. 1, 1914. 20 p. 5c.
- 14. Analyzed irons and steels, methods of analysis. 4th ed. rev. July 15, 1913. 15 p.
- 15. International unit of light. 3d ed. July 1, 1911. 7 p. 5c.
- 16. Testing of hydrometers. 3d ed. rev. Jan. 15, 1914. 16 p. 1 pl. 1 text fig. 5c.
- 17. Magnetic testing. 2d ed. rev. Dec. 1, 1910. 13 p. 5c.*
- 18. Standard gage for sheet and plate iron and steel. 2d. ed. July 1, 1911. 4 p. 5c.
- 19. Standard density and volumetric tables. 4th ed. Apr. 1, 1914. 54 p. [Also Supplement. Master scales for graduation of hydrometers. 9 p.] 5c.
- 20. Testing of electrical measuring instruments. Oct. 1, 1909. 31 p. 5c.*
- 21. Precision measurements of resistance and electromotive force. Mar. 1, 1910. 30 p. 5c.
- 22. Standard specifications for transformers, oil-immersed, self-colored, 60-cycle, 2,200 volts. 2d ed. May 15, 1911. 12 p.
- 23. Standardization of electrical practice in mines. July 15, 1910. 93 p. 15c.
- 24. Publications of Bureau of Standards. 4th ed. rev. July 1, 1913. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstracts of each title.] 54 p. [Also Supplement. Mar. 1, 1914. 5 p.]
- 26. Analyzed iron and manganese ores, methods of analysis. 3d ed. rev. May 26, 1913. 20 p. 5c.
- 29. Announcement of change in value of international volt. Dec. 31, 1910. 13 p. 5c.*
- 30. Lime: Its properties and uses. Apr. 15, 1911. 22 p. 5c.
- 31. Copper-wire tables. 3d ed. rev. Oct. 1, 1914. 76 p. 3 text fig. 10c.
- 33. United States Government specification for Portland cement. 2d ed. July 1, 1913. 28 p. 10 text fig. 10c.
- 34. Relation of horsepower to kilowatt. June 1, 1912. 12 p. 5c.
- 35. Melting points of chemical elements. June 15, 1912. 2 p. 5c.*

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36. Testing and properties of electric condensers. June 30, 1912. 28 p. 1 chart, 2 text fig. 5c.
37. Electric wire and cable terminology. Jan. 15, 1913. 13 p. 15 text fig. 5c.
38. Testing of mechanical rubber goods. 2d ed. rev. Apr. 5, 1913. 39 p. 20 text fig. 5c. [Also Supplement. Preliminary report of joint rubber insulation committee. Oct. 1, 1913. 16 p.]
39. Specifications for and measurement of standard sleeves. 1912. 14 p. 5c.*
40. Sodium oxalate as standard in volumetric analysis. 2d ed. rev. May 15, 1913. 13 p. 5c.
41. Testing and properties of textile materials. Apr. 15, 1913. 16 p. 5c.
42. Metallographic testing. Sept. 1, 1913. 16 p. 5c.
43. Metric carat. Nov. 1, 1913. 12 p. 5c.
44. Polarimetry (and polarimetric analysis of raw and other sugars). Jan. 15, 1914. 140 p. 2 pl. 9 text fig. 35c. [Supersedes Cir. 12.]
45. Testing of materials. Nov. 1, 1913. 89 p.
46. Testing of barometers. 2d ed. rev. July 15, 1914. 12 p. 5c.
47. Units of weight and measure; definitions and tables of equivalents. July 1, 1914. 68 p. 15c. [Supersedes miscellaneous publication, "Tables of equivalents of United States customary and metric weights and measures."]
48. Standard methods of gas testing. Aug. 1, 1914. 180 p. 1 pl. 15 text fig. 35c.
49. Safety rules to be observed in the operation and maintenance of electrical equipment and lines. Aug. 1, 1914. 50 p. 15c.

MISCELLANEOUS.

- Annual report of Director, 1914. 99 p. [There are also available copies of annual reports for 1901 and 1903-1913, inclusive.]
- International metric system. (Chart.)
- International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.
- State and national laws concerning weights and measures of United States. 2d ed. 564 p. 1912. 85c.
- First conference on weights and measures of United States. Jan. 16, 17, 1905. 46 p. 10c.
- Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.
- Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.
- Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.
- Fifth annual conference on weights and measures of United States. Feb. 25, 26, 1910. 123 p. 15c.
- Sixth annual conference on weights and measures of United States. Feb. 17, 18, 1911. 158 p. 1 text fig. 20c.
- Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.
- Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.
- National Bureau of Standards. Description of work of Bureau. 24 p.
- Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan. 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]

* Available only from Superintendent of Documents at price stated.

STEAMBOAT-INSPECTION SERVICE.

Two regular publications are issued by the Steamboat-Inspection Service, as follows:

Report of the Supervising Inspector General. (Annual.)

List of Officers of Merchant Steam, Motor, and Sail Vessels Licensed During the Fiscal Year Ending June 30 for a Period of Five Years. (Annual.)

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest editions of the publications, all of which are available for distribution, are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General, 1914. 49 p. [There are also available copies of annual reports for 1910, 1911, and 1913.]

List of officers of merchant steam, motor, and sail vessels licensed during year ended June 30, 1913, for period of five years. 270 p.

Laws governing Steamboat-Inspection Service. Ed. Apr. 27, 1914. 63 p.

General rules and regulations prescribed by Board of Supervising Inspectors, as amended Jan., 1914, and further amended June 22-23, 1914. Ed. July 22, 1914. 355 p. 19 text fig.

Amendments of steamboat-inspection rules and regulations. Dec. 15, 1914. 6 p.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. September 1, 1914. 29 p. 5 text fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.



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NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications, many of which are intended for free but judicious distribution.

This pamphlet, which contains a complete list of the publications of the Department available for distribution, revised and corrected to date of issue, is published twice each year and contains general information concerning the publications issued by the Department. There is also published each month a list of publications issued by the Department during that month. Persons desiring to have their names placed on the mailing list to receive copies of either the complete list or the monthly list should address the "Chief, Division of Publications, Department of Commerce, Washington, D. C."

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and where prices are given in this list they can also be purchased from the "Superintendent of Documents, Office of the Public Printer, Washington, D. C.," to whom remittances should be sent direct, as his office is not a part of the Department of Commerce. For the convenience of the general public, coupons that are good until used in exchange for Government publications sold by the Superintendent of Documents may be purchased from his office in sets of 20 for \$1.

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Coast Pilots, Tide Tables, and Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address, and stating specifically the publication or publications received by them. The Department should also be notified promptly when publications are no longer desired.

DAN C. VAUGHAN,
Chief, Division of Publications.

PUBLICATIONS OF THE DEPARTMENT OF COMMERCE AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1914. 210 p. 5 pl. 1 map, 20 text fig. [There is also on hand limited supply of Secretary's report for each of years 1903 to 1913, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated], 1914. 834 p. 5 pl. 1 map, 20 text fig. [There is also on hand limited supply of consolidated reports of Department for each of years 1904, 1905, 1906, 1911, 1912, and 1913.]

Annual report of Chief of Appointment Division, 1914. 24 p. [There are also available copies of each annual report from 1910 to 1913, inclusive.]

Annual report of Chief of Division of Publications, 1914. 45 p. [There are also available each annual report from 1907 to 1913, inclusive.]

Condensed history, duties, and practical operation of Department and its several bureaus and offices. July 1, 1913. 63 p.

Same, together with laws relating specifically thereto. July 1, 1913. 211 p.

List of publications of Department available for distribution. 12th ed. July 1, 1915. 75 p.

List of publications issued by Department. 4 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6, 1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are supplied to applicants without expense so long as the editions allowed for free distribution will permit, and can also be purchased at prices

stated in this list from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1880) REPORTS.

- Agriculture:** Including cereal production; flour-milling processes; tobacco; meat production. 1149 p. \$1.50.
- Cotton production:** pt. 1, Mississippi Valley and Southwestern States. 924 p. \$1.30.
- Same:** pt. 2, Eastern Gulf, Atlantic, and Pacific States. 848 p. \$1.30.
- Defective, dependent, and delinquent classes of population** (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p. 75c.
- Forests of North America, 1884.** 622 p. \$1.25.^a
- Maps accompanying above.** \$1.25.^a
- Manufactures:** Including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass. 1248 p. \$1.50.
- Mining industries** (exclusive of precious metals). 1064 p. \$2.
- Mining laws and regulations—United States, State, Territorial, and local.** 716 p. \$1.10.
- Mortality and vital statistics:** pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p. \$1.20.
- Same:** pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p. \$1.60.
- Plates and diagrams accompanying part 2 of report on mortality and vital statistics, 1886.** 65c.^a
- Newspaper and periodical press; Alaska; seal islands; shipbuilding.** 1122 p. \$1.60.
- Oyster industry.** 251 p. Half leather, \$1; cloth, 50c.
- Petroleum, coke, and building stones.** 872 p. \$1.75.^a
- Population:** By States, counties, and minor civil divisions, with distinction of race, sex, age, nativity, and occupations, together with summary tables relating to newspapers and periodicals; public schools; illiteracy; the dependent, defective, and delinquent classes. 1064 p. \$1.50.
- Power and machinery employed in manufactures, and ice industry of United States.** 666 p. 85c.
- Precious metals, statistics and technology of.** 558 p. \$1.^a
- Social statistics of cities:** pt. 1, New England and Middle States. Includes streets, street railways, public buildings and works, sanitation, Government schools, and commerce and industry. 924 p. \$1.50.
- Transportation agencies in United States.** 870 p. \$1.25.^a
- Valuation, taxation, and public indebtedness.** 920 p. \$1.35.
- Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts.** 792 p. \$1.10.
- Water power of United States, 1885:** pt. 1. 874 p. \$1.25.^a
- Same, 1887:** pt. 2. 788 p. \$1.^a

ELEVENTH CENSUS (1890) REPORTS.

- Abstract.** 312 p. 25c.^a
- Agriculture by irrigation.** 336 p. \$1.50.
- Alaska, population and resources of.** 294 p. \$1.15.
- Churches.** 840 p. \$1.10.

^a Available only from Superintendent of Documents at price stated.

- Compendium: pt. 1, Population; dwellings and families; Alaska. 1098 p. \$1.15.
- Same: pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1070 p. \$1.10.
- Same: pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians, taxed and not taxed. 1158 p. \$1.05.
- Crime, pauperism, and benevolence in United States: pt. 1, Analysis. 420 p. 70c.^a
- Same: pt. 2, General tables. 1048 p. \$1.^a
- Eastern Cherokees of North Carolina. 24 p. 25c.
- Education. 141 p.
- Farms and homes, proprietorship, and indebtedness in United States, 1896. 658 p. \$1.10.^a
- Five Civilized Tribes in Indian Territory. 70 p. 25c.
- Indians taxed and not taxed. 692 p. \$2.35.^a
- Insane, feeble-minded, deaf and dumb, and blind. 768 p. \$1.10.
- Insurance business: pt. 1, Fire, marine, and inland insurance. 1138 p. \$1.
- Same: pt. 2, Life insurance. 490 p. 70c.
- Manufacturing industries in United States: pt. 1, Totals for States and industries. 1002 p. \$1.^a
- Same: pt. 2, Statistics of cities. 827 p. 95c.
- Same: pt. 3, Selected industries. 733 p. 85c.^a
- Mineral industries. 874 p. \$1.50.
- Occupations, census of 1890. 127 p. 15c.
- Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; foreign parentage; conjugal condition; school, militia, and voting ages; dwellings and families; Indians; Alaska. 1181 p. \$1.35.^a
- Same: pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1140 p. \$1.10.
- Real estate mortgages. 956 p. \$1.15.
- Social statistics of cities in United States. 146 p. 50c.^a
- Statistical atlas of United States based upon results of Eleventh Census. 70 p. \$4.^a
- Textiles, census of 1890. 236 p.
- Transportation business in United States: pt. 1, Transportation by land. 875 p. 95c.^a
- Same: pt. 2, Transportation by water. 532 p. 70c.^a
- Vital and social statistics: pt. 1, Analysis and rate tables. 1077 p. \$1.40.
- Same: pt. 2, Cities of 100,000 population and upward. 1191 p. \$1.35.
- Same: pt. 3, Statistics of deaths. 1057 p. \$1.
- Vital and social statistics: pt. 4, Statistics of deaths. 1039 p. \$1.
- Vital statistics covering period of six years ended May 3, 1890; Boston and Philadelphia. 278 p. 75c.^a
- Same: District of Columbia and Baltimore. 250 p. 75c.^a
- Same: New York and Brooklyn. 538 p. \$1.^a
- Wealth, debt, and taxation: pt. 1, Public debt. 902 p. \$1.20.
- Same: pt. 2, Valuation and taxation. 662 p. 80c.

TWELFTH CENSUS (1900) REPORTS.

- Abstract. 470 p. 30c.
- Agriculture: pt. 1, Farms, live stock, and animal products. 1003 p. \$2.
- Same: pt. 2, Crops and irrigation. 880 p. \$2.

^a Available only from Superintendent of Documents at price stated.

Manufactures: pt. 1, United States by industries. 1039 p. \$2.*

Same: pt. 2, By States and Territories. 1111 p. \$2.

Same: pt. 3, Selected industries, including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleomargarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1143 p. \$2.*

Same: pt. 4, Selected industries. Includes iron and steel; tin andterne plate; lead, copper, and zinc, smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p. \$2.

Manufactures—Textiles (monograph). 258 p. 50c.

Occupations at Twelfth Census. 1029 p.

Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in United States. 1236 p. \$2.*

Same: pt. 2, Ages, in detail; school, militia, and voting ages; conjugal condition; school attendance; illiteracy; inability to speak English; occupations; dwellings and families; proprietorship of homes. 978 p. \$2.*

Revenue systems of State and local governments. 211 p.

Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1162 p.

Vital statistics: pt. 1, Analysis and ratio tables. 1009 p. \$2.*

Same: pt. 2, Statistics of deaths. 1061 p. \$2.*

Wealth, debt, and taxation—Abstract. 31 p. 10c.

THIRTEENTH CENSUS (1910) PUBLICATIONS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

Population: vol. 1, General report and analysis. 1369 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Number of inhabitants; 104 p. 2. Color or race, nativity, and parentage; 122 p. 3. Sex distribution; 42 p. 4. Age distribution; 218 p. 5. Marital condition; 182 p. 6. State of birth; 92 p. 7. Country of birth; 94 p. 8. Foreign white stock; 84 p. 9. Mother tongue; 58 p. 10. Year of immigration; 16 p. 11. Voting and militia ages; 64 p. 12. School attendance; 88 p. 13. Illiteracy; 80 p. 14. Inability to speak English; 20 p. 15. Dwellings and families; 8 p. 16. Ownership of homes; 74 p.] \$1.60.

* Available only from Superintendent of Documents at price stated.

- Same, vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana.** 1160 p. \$1.50.
- Same, vol. 3, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico.** 1225 p. \$1.50.
- Same, vol. 4, Occupation statistics.** 615 p. [The following tables from this volume have been reprinted as separates: 3. Occupation statistics, cities of 100,000 and over; 57 p. 4. Occupation statistics, cities of 25,000 and over; 85 p. 5 and 9. Occupation statistics, Alaska, Hawaii, and Porto Rico; 19 p.] \$3.
- Agriculture: vol. 5, General report and analysis.** 927 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 88 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 146 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.] \$1.40.
- Same, vol. 6, Reports by States, with statistics for counties—Alabama to Montana.** 977 p. \$1.25.
- Same, vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico.** 1013 p. \$1.35.
- Manufactures: vol. 8, General report and analysis.** 845 p. [The following portions of this volume have been reprinted as separates: Tables 5 and 6. Comparative summary, principal industries, by States, 1909, 1904, and 1899; establishments, persons engaged, power, capital, expenses, and value of products; Industries, by States, 1909; 245 p. Chap. 15 and Table 1. Description of individual industries with principal statistics for each; 145 p.] \$1.10.
- Same, vol. 9, Reports by States, with statistics for principal cities.** 1404 p. \$1.65.
- Same, vol. 10, Reports for principal industries.** 975 p. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motor cycles, and parts; 6 p. Blast furnace, steel works and rolling mill, wire, and tinplate and terneplate industries; 80 p. Boots and shoes, including cut stock and findings; 20 p. Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products: General chemical industry; bone, carbon, and lamp black; dyestuffs and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p. Flour-mill and gristmill products; 24 p. Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 19 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 19 p. Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p. Paper and wood pulp; 16 p. Petroleum refining; 10 p. Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 19 p. Silk manufactures [also included in Textiles]; 25 p. Slaughtering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p. Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and

allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 18 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p.] \$1.25.

Mining: vol. 11, Mines and quarries. 369 p. [The following sections of this volume have been printed as separates: Coal; 55 p. Iron mines; 25 p.] 65c.

Abstract of the Census with State supplements.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries).

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:

Introduction.

Population: 1. Number and distribution of inhabitants. 2. Color or race, nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native population. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries. \$1.

State supplements.

These supplements vary in size from 37 pages (District of Columbia) to 225 pages (New York).

Alabama, 20c.; Alaska, 10c.; Connecticut, 20c.; District of Columbia, 10c.; Georgia, 25c.; Hawaii, 10c.; Idaho, 15c.; Illinois, 30c.; Indiana, 25c.; Iowa, 25c.; Kansas, 25c.; Kentucky, 25c.; Louisiana, 20c.; Maine, 15c.; Maryland, 15c.; Massachusetts, 20c.; Michigan, 25c.; Minnesota, 25c.; Mississippi, 15c.; Missouri, 25c.; Montana, 20c.; Nebraska, 20c.; Nevada, 15c.; New Hampshire, 15c.; New Jersey, 20c.; New Mexico, 15c.; New York, 35c.; North Carolina, 20c.; North Dakota, 15c.; Ohio, 30c.; Oklahoma, 20c.; Oregon, 20c.; Pennsylvania, 30c.; Porto Rico, 15c.; Rhode Island, 15c.; South Carolina, 15c.; Tennessee, 20c.; Texas, 40c.; Utah, 15c.; Vermont, 15c.; Virginia, 25c.; Washington, 20c.; West Virginia, 15c.; Wisconsin, 20c.; and Wyoming, 15c.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States and, where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p. Color or race, nativity, parentage, sex, and males of voting and militia ages [reprint of chap. 2 of Abstract]; 43 p. 5c. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. 5c. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. 5c. Country of origin of population of foreign birth and parentage, and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p. 5c.

Agriculture: Farms and farm property; 20 p. General farm crops; 28 p. 5c. Live stock on farms and elsewhere; 34 p. 5c. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. 5c. Crops; 59 p. 10c. Live-stock products, and domestic animals sold or slaughtered on farms; 16 p. 5c.

Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p. 5c.

Manufactures: Manufactures, by States, cities, and industries; 96 p.

Mines: Statistics of mining, for industries and States; 24 p.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

Population of counties and equivalent subdivisions. 30 p. 5c.

Total population and area of the United States, by States and Territories. 16 p. 5c.

Population of cities of 2,500 inhabitants and over. 46 p.

Center of population and median lines, continental United States. 8 p. 5c.

Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p. 65c.

Cities and their suburbs. 6 p.

Population of incorporated places. 111 p. 15c.

Occupation statistics [summary of vol. 4 of final reports.] 107 p. 20c.

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

Population of New York City, by enumeration districts. 23 p. 5c.

Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p. 5c.

Chinese and Japanese in the United States. 50 p. 15c.

Age of farmers, by color of operator, character of tenure, and size of farm. 35 p. 10c.

Stability of farm operators, or term of occupancy of farms. 22 p. 5c.

Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.] 5c.

INTERCENSAL REPORTS (1900-1913).

- Benevolent institutions: 1904, 335 p., 50c.; 1910, 411 p., 75c.
 Blind and deaf: 1900. 274 p. 60c.
 Central electric light and power stations: 1902. 185 p. Cloth, 50c.; paper, 25c.
 Central electric light and power stations and street and electric railways: 1912. 440 p. \$1.
 Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p. \$1.10.
 Electrical industries: 1902. 822 p. \$1.65.
 Express business in United States: 1907. 28 p. 10c.
 Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p. 70c.
 Indians in United States and Alaska: 1910. 285 p.
 Insane and feeble-minded in institutions: 1904, 238 p., cloth, 60c.; paper, 25c.; 1910, 211 p., 55c.
 Manufactures: 1905, pt. 1, United States by industries. 1030 p. \$1.35.
 Marriage and divorce: 1867-1906, pt. 1, 535 p.; pt. 2, General tables, 850 p. \$1.50.
 Mines and quarries: 1902. 1153 p. \$1.50.
 Mortality: 1900-1904, 1003 p., \$1.25; 1905, 360 p., \$1; 1906, 486 p., 80c.; 1907, 538 p., \$1.25; 1909, 810 p., \$1.25; 1911, 572 p., \$1; 1912, 382 p., 75c.
 Paupers in almshouses: 1904, 216 p., cloth, 60c.; paper, 25c.; 1910, 141 p., 50c.
 Religious bodies: 1906, pt. 1, Summary and general tables, 576 p., \$1; pt. 2, Separate denominations: History, description, and statistics, 670 p., \$1.
 Statistics of cities having population of over 30,000: 1905, 372 p., 50c.; 1906, 358 p., 85c.; 1909, 279 p., 55c.; 1910, 308 p., 60c.; 1911, 401 p., 75c.; 1912. 410 p., 75c.
 General statistics of cities: 1909. 197 p. 45c.
 Telephones and telegraphs: 1902. 184 p. 75c.
 Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p. 55c.
 Telephones and telegraphs and municipal electric fire-alarm and police-patrol signaling systems: 1912. 208 p. 50c.
 Transportation by water: 1906. 240 p. 90c.
 Wealth, debt, and taxation: 1913, vol. 1, 886 p.; vol. 2, 756 p.

INTERCENSAL BULLETINS (1900-1914).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census, or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects.

Miscellaneous.

- Age statistics, discussion: 1880, 1890, 1900-13. 53 p. 10c.
 The blind population of the United States: 1910-130. 52 p.
 Central electric light and power stations and street and electric railways: 1912-124. 113 p. 25c.
 Child labor in United States: Twelfth Census, 1900-69. 200 p. 25c.
 Chinese and Japanese in United States: 1910-127. 50 p. 15c.

- Commercial valuation of railway operating property in United States: 1904—21. 83 p.
- Cotton ginned in United States: Crops of 1899 to 1902, inclusive—2. 46 p. 5c.
- Cotton production: 1905—40, 72 p., 10c.; 1906—76, 68 p., 10c.; 1907—95, 58 p., 15c.; 1909—107, 64 p., 10c.; 1910—111, 66 p., 15c.; 1911—114, 61 p., 10c.; 1912—116, 63 p., 10c.; 1913—126, 79 p., 15c.
- Cotton supply and distribution for year ended Aug. 31, 1905—25, 15 p., 5c.; 1907—90, 26 p., 10c.; 1908—97, 40 p., 15c.; 1909—106, 32 p., 10c.; 1910—110, 32 p., 10c.; 1911—113, 31 p., 10c.; 1912—115, 31 p., 10c.; 1913—117, 40 p., 10c.; 1914—128, 30 p., 10c.
- Earnings of wage earners (a study based on census of manufactures, 1905)—93. 179 p. 25c.
- Electrical industries of Porto Rico: 1907—99. 29 p. 10c.
- Estimates of population: 1904, 1905, 1906—71, 28 p., 10c.; 1910—1914—122, 24 p. 5c.
- Estimates of population of larger cities of United States in 1901—1903—7. 21 p. 10c.
- Executive civil service of United States, statistics of employees: 1904—12, 239 p., 25c.; 1907—94, 164 p., 20c.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p. 5c.
- Illiteracy in United States (study based on reports of Twelfth and preceding censuses)—26. 54 p. 10c.
- Increase of population: 1890 to 1900, discussion of—4. 63 p. 10c.
- Industrial districts: 1905. Manufactures and population—101. 81 p. 15c.
- Insane and feeble-minded in institutions: 1910—119. 99 p. 10c.
- Insular and municipal finances in Porto Rico for fiscal year 1902—3—24. 31 p. 5c.
- Irrigation in United States: 1902—16. 92 p. 10c.
- Marriage and divorce: 1887—1906—96. 71 p. 15c.
- Mineral industries of Porto Rico: 1902—6. 18 p. 15c.
- Mines and quarries: 1902—9. 59 p. 10c.
- Mortality statistics: 1908—104, 133 p., 20c.; 1910—109, 191 p., 30c.; 1911—112, 142 p., 25c.
- Municipal electric fire-alarm and police-patrol systems: 1902—11. 33 p. 10c.
- Negroes in the United States: 1910—129. 207 p. 35c.
- Paupers in almshouses: 1910—120. 99 p. 20c.
- Population of Oklahoma and Indian Territory: 1907—89. 43 p. 15c.
- Prisoners and juvenile delinquents: 1910—121. 130 p. 15c.
- Proportion of children in United States (study based on reports of Twelfth and preceding censuses)—22. 27 p. 5c.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding censuses)—14. 51 p. 10c.
- Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p. 20c.
- Statistics of cities having population of 8,000 to 25,000: 1903—45. 231 p. 25c.
- Statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p. 40c.
- Statistics of cities having population of over 30,000: 1904—50, 209 p., 25c.; 1907 (abstract of annual report)—105, 94 p., 15c.; 1912—118, 83 p., 15c.; 1913—126, 73 p., 15c.
- Supervisors' districts for Thirteenth Census: 1910—98. 19 p. 15c.
- Teachers, statistics (study based on reports of Twelfth and preceding censuses)—23. 20 p. 5c.
- Telegraph systems: 1907—102. 47 p. 25c.
- Telephones and telegraphs: 1902—17, 49 p., 10c.; 1912—123, 26 p., 10c.
- Transportation by water: 1906. United States—91. 57 p. 10c.
- Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p. 10c.

* The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

Wealth, debt, and taxation.

The statistics presented in these bulletins are reproduced in Volumes I and II of the report on Wealth, Debt, and Taxation: 1913.

Abstract of special bulletins: 1913. 63 p.

Assessed valuation of property and amounts and rates of levy: 1860-1912. 176 p. 35c.

County and municipal indebtedness: 1913, 1902, and 1890; and sinking-fund assets, 1913. 228 p. 25c.

County revenues, expenditures, and public properties: 1913. 338 p. 50c.

Estimated valuation of national wealth: 1850-1912. 20 p.

Municipal revenues, expenditures, and public properties: 1913. 378 p. 70c.

National and State indebtedness and funds and investments: 1870-1913. 203 p. 40c.

National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1918. 44 p.

Taxation and revenue systems of State and local governments: 1913. 275 p. 50c.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

Agricultural implements—75. 31 p. 10c.

Automobiles and bicycles and tricycles—80. 37 p. 10c.

Boots and shoes, leather, and leather gloves and mittens—72. 81 p. 15c.

Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p. 15c.

Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p. 10c.

Carriages and wagons, and steam and street railroad car industry—84. 75 p. 15c.

Chemicals and allied products—92. 124 p. 20c.

Copper, lead, and zinc, smelting and refining—80. 32 p. 10c.

Coke—65. 57 p. 15c.

Electrical machinery, apparatus, and supplies—73. 73 p. 20c.

Glass and clay products—62. 107 p. 15c.

Iron and steel and tin and terne plate—78. 105 p. 15c.

Lumber and timber products—77. 69 p. 20c.

Metal-working machinery—67. 18 p. 10c.

Musical instruments, attachments, and materials—82. 34 p. 10c.

Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p. 10c.

Petroleum refining—70. 57 p. 15c.

Power employed in manufactures—88. 27 p. 10c.

Printing and publishing—79. 133 p. 20c.

Shipbuilding—81. 29 p. 10c.

Tobacco—87. 33 p. 10c.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

United States—57. 93 p. 15c.

Alabama—43. 23 p. 10c.

Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p. 10c.

California, Oregon, and Washington—49. 73 p. 10c.

Colorado, Idaho, Nevada, and Utah—37. 49 p. 10c.
 Connecticut—42. 39 p. 10c.
 Delaware—31. 15 p. 10c.
 Florida—33. 17 p. 10c.
 Georgia—55. 23 p. 10c.
 Illinois—52. 53 p. 10c.
 Indiana—38. 37 p. 10c.
 Iowa—32. 27 p. 10c.
 Kansas—28. 25 p. 10c.
 Kentucky and Tennessee—47. 45 p. 10c.
 Louisiana, Mississippi, and Texas—48. 57 p. 10c.
 Maine—51. 25 p. 10c.
 Maryland and District of Columbia—27. 33 p. 10c.
 Massachusetts—53. 79 p. 10c.
 Michigan—18. 35 p. 10c.
 Minnesota—46. 27 p. 10c.
 Missouri and Arkansas—35. 47 p. 10c.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p. 10c.
 Nebraska—29. 19 p. 10c.
 New Hampshire and Vermont—41. 35 p. 10c.
 New Jersey—54. 53 p. 10c.
 New York—59. 101 p. 15c.
 North Carolina and South Carolina—39. 37 p. 10c.
 Ohio—58. 61 p. 10c.
 Pennsylvania—60. 81 p. 15c.
 Rhode Island—36. 29 p. 5c.
 Virginia and West Virginia—44. 43 p. 10c.
 Wisconsin—56. 39 p. 10c.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

- No. 1. Pulp-wood consumption: 1908, 12 p., 5c.; 1909, 15 p., 5c.; 1910, 10 p., 5c.; 1911, 10 p., 5c.
- No. 2. Lumber, lath, and shingles: 1908, 57 p., 5c.; 1909, 63 p., 5c.; 1910, 45 p., 5c.; 1911, 45 p., 5c.; 1912, 61 p.
- No. 3. Slack cooperage stock: 1907, 11 p., 5c.; 1909, 14 p., 5c.; 1911, 8 p., 5c.
- No. 4.^a Tanbark and tanning extracts: 1907, 10 p., 5c.; 1908, 10 p., 5c.; 1909, 14 p., 5c.
- No. 4. Excelsior: 1911. 4 p. 5c.
- No. 5. Veneers: 1907, 9 p., 5c.; 1908, 13 p., 5c.; 1909, 23 p., 5c.; 1911, 8 p., 5c.
- No. 6. Tight cooperage stock: 1907, 11 p., 5c.; 1909, 14 p., 5c.; 1911, 12 p., 5c.
- No. 7. Wood distillation: 1907, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 5 p., 5c.; 1911, 6 p.
- No. 8. Cross-ties purchased: 1907, 6 p., 5c.; 1908, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 8 p., 5c.; 1911, 8 p., 5c.
- No. 9. Poles purchased: 1907, 8 p., 5c.; 1908, 8 p., 5c.; 1909, 14 p., 5c.; 1910, 7 p., 5c.; 1911, 7 p., 5c.
- No. 10.^b Forest products of United States: 1908, 137 p., 15c.; 1909, 178 p., 15c.

^a This pamphlet was not issued for 1910 and 1911.

^b No. 10 is a consolidation, without change, of Nos. 1 to 9.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish; both editions are now exhausted. Three bulletins, compiled from these reports, in English only, are, however, available.

No. 1. Population of Philippines. 100 p. 10c.

No. 2. Climate of Philippines. 103 p. 10c.

No. 3. Volcanoes and seismic centers of Philippine Archipelago. 80 p. 10c.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand in the United States for information regarding Cuba the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

Cuba: Population, history, and resources: 1907 (compendium). 275 p. Cloth, 50c.^a; paper, 35c.^a

Vital statistics.

Index of joint causes of death: 1914. 308 p. 70c.

International classification of causes of sickness and death: 1910. 146 p. 20c.

Legal importance of registration of births and deaths: 1908. 32 p.

Manual of international list of causes of death: 1911, 297 p.; 1913, 307 p. 65c.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p. 10c.

^a Available only from Superintendent of Documents at price stated.

- Physicians' pocket reference to international list of causes of death: 1910, 20 p.; 1913, 28 p.
 Practical registration methods: 1903. 29 p. 5c.
 Tuberculosis in United States: 1908. 67 p. 15c.

MISCELLANEOUS.

- Annual report of Director, 1914. 29 p. [There are also available limited number of annual reports for each year since 1903, with the exception of 1904.]
 American census taking. 34 p.
 Census Office and coordination of statistics. 43 p.
 Census publications: 1914 (complete descriptive and chronological lists of publications). 91 p.
 Collaboration in Federal and State statistical work. 73 p. 5c.
 Cooperation and unification in Federal and State statistical work. 48 p.
 History and growth of United States census: 1790-1890. 967 p. 70c.
 Index to occupations, alphabetical and classified. 414 p. 75c.
 Leaf tobacco—Report on quantity held by manufacturers and dealers Apr. 1, 1915. 22 p.
 Special census of population of Tu'sa, Okla., Apr. 15, 1915. 16 p. 1 map. 10c.
 Standard form for reporting financial statistics of public schools: 1911. 28 p.
 Statistical atlas of United States: 1914. 602 p. 503 pl., 99 text fig. \$2.50.
 Summary of State laws relating to care of dependent classes: 1913. 346 p. 40c.
 Tentative program of Bureau of the Census: 1914-1916. 8 p. 5c.
 The story of the census: 1790-1915. 36 p.
 Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p. 5c.
 Uniform accounts for systems of water supply: 1911. 44 p. 5c.
 Uniform municipal accounting: 1906. 121 p. 25c.
 Work of Permanent Census Bureau: 1902-1913. 31 p. 5c.

COAST AND GEODETIC SURVEY.

In addition to the annual report of the Superintendent, detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of geodesy, topography, hydrography, terrestrial magnetism, the tides, and related subjects; charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications are furnished without charge by the Division of Publications, Department of Commerce, and many of them, and also many of those of which the stock for general distribution is exhausted, may be purchased from the Superintendent of Documents, Government Printing Office, at the prices stated in this list.

For convenient identification future publications and revised editions of former publications of the Survey will have a serial number on the upper left-hand corner of cover and title-page, which should be referred to when copies of a publication bearing a serial number are requested.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in coast line or in depths in channels and harbors, and information relating to terrestrial magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey of the year 1908, inclusive, may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at

all depositories of public documents and at many public libraries. For later publications the List of Publications issued by the Department should be consulted.

Coast Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes nearly 800 charts on different scales, for general or local use, covering the coast of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and coast-pilot notes relating to Alaska, the Philippine Islands, and Hawaii.

Inside Route Pilots have been published covering the navigable waters from New York to Key West, Key West to New Orleans, and the coast of New Jersey. Similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1913, to June 30, 1914. 132 p. 1 diag. 16 progress sketches. [There is also on hand a limited supply of annual reports, 1851 to 1914, except 1862, 1870, 1871, 1875, 1896, and 1897.*]

GEODESY.

Longitude between America and Europe from signals through Atlantic cable; by B. A. Gould. Report for 1867, app. 6, p. 57-133.

Observations of eclipse of sun on Aug. 7, 1869, made by parties of Survey at following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under immediate direction of Superintendent of Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts, 3 pl. 16 fig. 1 map, 2 diag.

Description of two forms of portable apparatus for determination of personal equation, both relative and absolute, in observations of star transits; by J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig. 1 diag. 5c.

* The Superintendent of Documents can supply copies of annual reports for 1848 to 1914, except 1896, at the following prices: 1848, 50c.; 1849, 25c.; 1850, 50c.; 1851, pt. 1, 45c.; 1851, pt. 2, 40c.; 1852, 85c.; 1853, 85c.; 1854, \$1.10; 1855, \$1.15; 1856, \$1.15; 1857, \$1.25; 1858, \$1.10; 1859, \$1.10; 1860, \$1.10; 1861, 90c.; 1862, \$1.15; 1863, \$1; 1864, \$1; 1865, \$1; 1866, 90c.; 1867, 90c.; 1868, 90c.; 1869, 90c.; 1870, 90c.; 1871, 90c.; 1872, 90c.; 1873, 90c.; 1874, \$1; 1875, \$1.20; 1876, \$1.25; 1877, \$1.20; 1878, \$1.20; 1879, \$1.20; 1880, \$1.20; 1881, \$1.20; 1882, \$1.25; 1883, \$1.20; 1884, \$1.20; 1885, \$1.20; 1886, \$1; 1887, \$1.10; 1888, \$1.20; 1889, \$1.75; 1890, \$1.30; 1891, pt. 1, \$1; 1891, pt. 2, 90c.; 1892, pt. 1, 80c.; 1892, pt. 2, 70c.; 1893, pt. 1, \$1.60; 1893, pt. 2, 80c.; 1894, pt. 1, \$1; 1894, pt. 2, \$1.15; 1895, \$1.60; 1896, \$1.60; 1897, \$1.70; 1898, \$1.60; 1899, \$1.60; 1900, \$1.90; 1901, \$1.20; 1902, \$1.10; 1903, \$1.35; 1904, \$1.40; 1905, \$1; 1906, \$1.25; 1907, \$1.75; 1908, \$1; 1909, \$1; 1910, \$1.10; 1911, \$1.35; 1912, 25c.; 1912, maps, 35c.; 1913, 75c.; 1914, 40c.

Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal. ; by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig. [Reprinted from Report for 1871, app. 16.^a]

Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a

Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^a

Adaptation of triangulations to various conditions, depending on configuration or orographic character of country and on degree of accuracy aimed at, with due consideration of time and means available; also notes on method of observing horizontal angles and directions in geodetic surveys; by Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 fig. [Reprinted, with additions, from the Report for 1871, app. 15.]

Pamlico-Chesapeake arc of meridian and its combination with Nantucket and Peruvian arcs, for determination of figure of earth from American measures; by Charles A. Schott. Report for 1877, app. 6, p. 84-95. 5c.

Observations of transit of Mercury, May 6, 1878, made at Summit station, Central Pacific R. R.; by B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl. 1 sketch. 5c.

Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.

Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag. 5c.

Observations to determine refraction on lines passing near a surface of water, made at different elevations across Potomac River; by Andrew Braid. Report for 1879, app. 16, p. 212-213.

Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag. 5c.

Explanation of apparatus for observation of telegraphic longitudes, with directions for its use; by Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diag.

Geodesic night signals; by Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig. 1 pl. 1 diag.

Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag.

Perfect form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. 5c.

Meteorological researches: pt. 3, Barometric hypsometry and reduction of barometer to sea level; by William Ferrel. Report for 1881, app. 10, p. 225-268, 1 illus.

Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358. 5c.

Flexure of pendulum supports; by C. S. Peirce. Report for 1881, app. 14, p. 359-441^b

Deduction of ellipticity of earth from pendulum experiments; by C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.^b

Method of observing coincidence of vibration of two pendulums; by C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 fig.^b

Value of gravity at Paris; by C. S. Peirce. Report for 1881, app. 17, p. 461-463.^b

^a Appendices 16-19 of Report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Allied subjects."

^b Appendices 14-17 to Report for 1881 are bound together.

- Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag. 5c.
- Measurement of Yolo base, Yolo County, Cal.; by George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig. 1 sketch, 2 diag.
- Total solar eclipse of Jan. 11, 1880, observed at Mount Santa Lucia, Cal.; by George Davidson. Report for 1882, app. 20, p. 463-468, 2 diag.
- New reduction of La Caille's observations, made at Cape of Good Hope and at Paris, 1749-1757, and given in his "Astronomiæ Fundamenta," together with a comparison of results with Bradley-Bessel "Fundamenta"; also catalogue of places of 150 stars south of declination -30° , for epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502. 5c.
- Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 503-516.
- Results for length of primary base line in Yolo County, Cal., 1881, by party of George Davidson; computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-283, 1 diag. 5c.
- Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.
- Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880; by Charles S. Peirce. Report for 1883, app. 19, p. 473-487. 10c.
- Run of micrometer; by George Davidson. Report for 1884, app. 8, p. 377-385. 5c.
- Connection at Lake Ontario of primary triangulation of Coast and Geodetic Survey with that of Lake Survey; observations by Charles O. Boutelle; discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map. 5c.
- Results of trigonometrical determination of heights of stations forming Davidson quadrilaterals, Cal.; observations by George Davidson, 1876-1882; discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 fig. 5c.
- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment; by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.
- Determinations of gravity with Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal.; and Washington, D. C. By Edwin Smith. Report for 1884, app. 14, p. 439-473. 10c.
- Use of noddy for measuring amplitude of swaying in pendulum support; by C. S. Peirce. Report for 1884, app. 15, p. 475-482. 5c.
- Note on effect of flexure of pendulum upon its period of oscillation; by C. S. Peirce. Report for 1884, app. 16, p. 483-485. 5c.
- Geographical positions of trigonometrical points in Massachusetts and Rhode Island, determined by Survey, 1835-1885, and including those determined by Borden survey, 1832-1838; by Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps. 10c.
- Results deduced from geodetic connection of Yolo base line with primary triangulation of California, also reduction and adjustment of Davidson quadrilaterals forming part of that triangulation; by Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig. 5c.
- Note on device for abbreviating time reductions; by C. S. Peirce. Report for 1885, app. 15, p. 503-508. 5c.
- Influence of noddy on period of pendulum; by C. S. Peirce. Report for 1885, app. 16, p. 509-510.*
- Effect of unequal temperature upon reversible pendulum; by C. S. Peirce. Report for 1885, app. 17, p. 511-512.*

* Appendixes 16 and 17 to Report for 1885 are bound together; price, 5 cents.

- Fluctuations in level of Lake Champlain and average height of its surface above sea—Preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. 5c.
- Heights from spirit levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, 1885-86; by Charles A. Schott. Report for 1887, app. 9, p. 185-205. 5c.
- Geographical positions of trigonometrical points in Connecticut, determined by Survey, 1833-1886—Introduction and explanation of tabular results; by Charles A. Schott. Report for 1888, app. 8, p. 313-403, 1 map. 10c.
- Heights from spirit leveling of precision between Mobile, Ala., and Okolona, Miss.; observations by J. B. Weir and J. E. McGrath, 1884, 1886, and 1887; report by Charles A. Schott. Report for 1888, app. 10, p. 409-426. 5c.
- Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark.; report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453. 5c.
- Heights from spirit leveling of precision between Arkansas City (on Mississippi River) and Little Rock, Ark.; observations by J. E. McGrath, 1887-88; report by Charles A. Schott. Report for 1888, app. 12, p. 455-464. 5c.
- Differential method of computing apparent places of stars for determinations of latitude; by E. D. Preston. Report for 1888, app. 13, p. 465-470. 5c.
- Determinations of latitude and gravity for Hawaiian government; by E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pl. 5 maps, 5 diag. 25c.
- Same, abstract. Bull. 11, p. 137-142, 1 fig. 3 maps. 1889. 20c.
- Measurement of Los Angeles base line, Los Angeles and Orange Counties, Cal.; by George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag. 5c.
- Results of spirit leveling between tidewater at Annapolis, Md., and Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins; report by C. A. Schott. Report for 1889, app. 15, p. 461-466. 5c.
- Resulting length and probable uncertainty of five principal base lines, measured with compensation base apparatus, Bache-Würdemann, of Survey, 1847-1855; by Charles A. Schott. Report for 1889, app. 17, p. 479-491. 5c.
- Report of George Davidson, appointed by President as delegate to 9th conference of International Geodetic Association held at Paris, October, 1889. Report for 1889, app. 18, p. 493-503, 1 fig. 5c.
- Telegraphic determination of longitude of Mount Hamilton, Cal.—Field work by C. H. Sinclair and R. A. Marr; by Charles A. Schott. Bull. 13, p. 147-150. 1889. 5c.
- Description of two new transit instruments for longitude work, constructed at office of Survey from designs by Edwin Smith. Bull. 16, p. 161-164, 1 fig. 1 diag. 1889. 10c.
- Determinations of gravity and magnetic elements in connection with United States scientific expedition to West Coast of Africa, 1889-90; by E. D. Preston. Report for 1890, app. 12, p. 625-684, 10 pl. 16 fig. 1 map. [Includes observations on some islands in the North and South Atlantic Ocean.] 15c.
- Same, abstract. Bull. 22, p. 219-223, 7 pl. 1 map. 1891.
- International Geodetic Association, 9th conference, Paris, Oct. 3-12, 1889—Address of George Davidson, delegate to association on part of United States. Report for 1890, app. 17, p. 721-733. 10c.
- Geographical explorations. Report for 1890, app. 19. 25c.
- Determination of azimuth from micrometric observations of close circumpolar star near elongation by means of meridian transit, or of a theodolite with eyepiece micrometer. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report on method and example of computation by Charles A. Schott; observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull. 21.] 5c.
- Transit of Mercury of May 9, 1881, as observed at Waikiki, Hawaii; by E. D. Preston. Report for 1891, pt. 2, app. 12, p. 475-477.
- Report of expedition to Muir Glacier, Alaska, with determinations of latitude and magnetic elements at Camp Muir, Glacier Bay; by Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map. 5c.

- Variation of latitude at Rockville, Md., as determined from observations, 1891 and 1892, in cooperation with International Geodetic Association; by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 fig. 2 pl. 2 diag. 10c.
- Same, abstract. Bull. 25, p. 237-261, 2 diag. 1892. 10c.
- Variation of latitude at Waikiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association; by E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl. 1 fig. 2 maps, 9 diag. 20c.
- Results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Weir, Isaac Winston, P. A. Welker, and F. A. Young; by Charles A. Schott. Report for 1892, pt. 2, app. 3, p. 161-203, 1 fig. 1 map. 5c.
- Results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations, 1890-91, by Isaac Winston and F. A. Young; by Charles A. Schott. Report for 1892, pt. 2, app. 4, p. 205-224. 5c.
- Measurement of Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va. Report for 1892, pt. 2, app. 8, p. 329-503, 2 pl. 2 fig. 2 diag. 25c.
- Measure of irregularity in one turn of micrometer screw, and relative value of each turn; by George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag. 5c.
- Direct synthetical method of adjusting triangulation; by Chas. H. Kummell. Report for 1892, pt. 2, app. 12, p. 535-552, 4 fig. 5c.
- Resulting heights from geodetic leveling along transcontinental line of levels between St. Louis and Jefferson City, Mo., 1882 and 1888, by Andrew Braid, Gershom Bradford, and Isaac Winston; discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig. 1 diag. 5c.
- Photography as applied to obtain instantaneous record of lunar distances for determinations of longitude; by C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124. 5c.
- Measurement of base line with steel tapes and with steel and brass wires; by Edw. Jäderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl. 1 diag.
- Proceedings of Geodetic Conference, held at Washington, D. C., Jan. 9-Feb. 23, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 7 pl. 4 fig. 1 map. 1 diag. 15c.
- Variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson, May, 1891-Aug., 1892; discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diag. 10c.
- Determinations of latitude, gravity, and magnetic elements at stations in Hawaiian Islands, including result for mean density of earth, 1891-92; by E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 8 pl. 12 fig. 2 maps, 6 diag. 10c.
- Results of observations for variations of latitude at Waikiki, Hawaii, in cooperation with work of International Geodetic Association; by E. D. Preston. Bull. 27, p. 6-20, 2 diag. 1893. 5c.
- Constant of aberration as determined from discussion of results for latitude at Waikiki, Hawaii; by E. D. Preston. Bull. 28, p. 21-34, 1 diag. 1893. 5c.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations; by G. R. Putnam. Also report on geologic examination of some Survey gravity stations; by G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 fig. 1 diag. 15c.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore; by E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig. 10c.
- Notes on some instruments recently made in instrument division of Survey; by Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pl. 15c.
- Geographic positions of trigonometric points in Massachusetts, determined by Survey, 1843-1894, and including those determined by survey made by Borden, 1832-1838. (2d enl. and rev. ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 8 maps. 35c.

- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 2, p. 321-332. 10c.**
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 3, p. 333-344. 10c.**
- Graphic method of reducing stars from mean to apparent places; by E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diag. 10c.**
- Description of leveling rods designed and constructed for use in geodetic leveling operations; by Isaac Winston. Report for 1895, app. 8, p. 381-392, 2 diag. 5c.**
- Tables of azimuth and apparent altitude of Polaris at different hour angles; by G. R. Putnam. Report for 1895, app. 10, p. 393-398.**
- Constant of aberration as determined from observations of latitude at San Francisco, Cal.; discussion by E. D. Preston; observations by George Davidson. Bull. 32, p. 109-120. 1895. 5c.**
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir, Sept.-Nov., 1884, and by I. Winston, Dec., 1891-Feb., 1892; by C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map. 5c.**
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations by J. B. Weir, Sept. and Oct., 1883, and Sept. and Oct., 1884, with relieving by J. B. Weir between Richmond and Fredericksburg, Va., May and June, 1886, and verification leveling between the two cities by I. Winston, Apr.-June, 1895; by Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map. 5c.**
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations by J. B. Weir, July-Sept., 1883; report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map. 5c.**
- Resulting heights from spirit leveling between Jefferson City, Mo., and Holli-day, Kans., from observations by I. Winston and F. A. Young, Apr. 21-Oct. 13, 1891; report by Charles A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig. 1 map. 5c.**
- Field method of reducing portable transit time observations; by G. R. Putnam. Report for 1896, app. 9, p. 347-352.**
- Telegraphic longitude net of United States and its connection with that of Europe, 1866-1896; by Charles A. Schott. Report for 1897, app. 2, p. 197-261, 1 map.**
- Resulting longitudes of Kadiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by party under charge of Fremont Morse; by Charles A. Schott. Report for 1897, app. 3, p. 263-268. 5c.**
- Resulting heights from spirit leveling between Hollday and Salina, Kans., from observations by I. Winston, July 11-Oct. 28, 1895; by Charles A. Schott. Report for 1897, app. 4, p. 269-283, 1 fig. 5c.**
- Results of pendulum observations, 1895 and 1896; by G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl. 1 map.**
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- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston, June 11-Nov. 17, 1897; report by Charles A. Schott. Report for 1898, app. 2, p. 195-214, 2 fig. 5c.**
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- Physical observations made in connection with the Pribilof Islands survey of 1897; by G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig. 1 map.
- Report on proceedings of International Geodetic Association Conference at Stuttgart, Germany, Oct. 3-12, 1898, and on geodetic operations in United States; by E. D. Preston, delegate on part of United States. Report for 1898, app. 6, p. 243-260, 1 pl. 3 maps.
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HYDROGRAPHY.

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- Philippine Islands—Sailing directions: sec. 3, Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.
- Same, sec. 4, Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 p.

Notice to mariners.

- Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

- Type forms of topography, Columbia River; by E. Hergeshelmer. Report for 1881, app. 7, p. 124-125, 7 fig. 1 map.
- Proceedings of Topographical Conference, Washington, D. C., Jan. 18-Mar. 7, 1892. Report for 1891, pt. 2, app. 16, p. 565-746, 2 pl. 25 fig. 1 map, 5 diag. 25c.
- Phototopography as practiced in Italy under auspices of Royal Military Geographical Institute, and as practiced in Dominion of Canada under auspices of Department of Interior; also short historical review of other photographic surveys and publications on subject. By J. A. Flemer, assistant. Report for 1893, app. 3, p. 37-116. 10c.

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Subdivision 1. List of original topographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834-Dec. 31, 1895; nos. 1-2200. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834-Dec. 31, 1895; nos. 1-2222. Report for 1895, app. 11, p. 390-516.

Plane table manual; by D. B. Wainwright. Report for 1905, app. 7 (reprint with corrections, Jan., 1915), p. 239-342, 7 litho. 9 pl. 20 p. of pl. 1 text fig. 50c.^a

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Report on results from observations made at magnetical observatory, Capitol Hill, Washington, D. C., 1867-1869; by Charles A. Schott. Report for 1869, app. 9, p. 190-207.

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Collection of results for declination, dip, and intensity, from observations made by Survey, 1833-1882, July; by Charles A. Schott. Report for 1881, app. 9, p. 159-224.

Secular variation of magnetic declination in United States and at some foreign stations; by Charles A. Schott, assistant. Report for 1882, app. 12, p. 211-276.

Records and results of magnetic observations made at charge of "Bache fund" of National Academy of Sciences, 1871-1876; under direction of J. E. Hilgard, M. N. A. S., by H. W. Blair. Report for 1882, app. 14, p. 329-426.

Account and results of magnetic observations made under direction of Survey in cooperation with United States Signal Office, at United States polar station Ooglaanie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 fig. 1 map.

Geographical distribution and secular variation of magnetic dip and intensity in United States; by Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diag. 15c.

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- Least square adjustment of weighings—Report prepared by direction of O. H. Tittmann, assistant, in charge of Office of Standard Weights and Measures; by John F. Hayford. Report for 1892, app. 10, p. 515-527. 5c.
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21. The pottery industry: Report on cost of production in earthenware and china industries of United States, England, Germany, and Austria. 709 p. 4 text fig. 8° 50c.
23. Trade of United States with other American countries, fiscal years 1913 and 1914: Imports and exports of merchandise into and from United States, by American countries and principal articles, fiscal years 1913 and 1914. 143 p. 8° 20c.

^a Available only from Superintendent of Documents at price stated.

^b Nos 25 and 25A have been reprinted under one cover. Price, 15 cents.

^c This price includes copies of both supplements, Nos. 28A and 28B.

24. Industrial conditions in Montgomery County, Pa.; by D. M. Barclay. 16 p. 8° 5c.
25. European markets for fish. 36 p. 8° 5c.^a
26. Consumption estimates, showing production, imports, exports, and amounts available for consumption of various articles in United States by years specified. 12 p. 8° 5c.

BUREAU OF LIGHTHOUSES.

The Bureau of Lighthouses publishes from time to time the following light lists, corrected to date of issue:

- Atlantic and Gulf Coasts of the United States.
- Pacific Coast.
- Great Lakes.
- Upper Mississippi River.
- Ohio River.
- Lower Mississippi River.

There is also published a buoy list for each of the 16 coast and lake lighthouse districts.

Notice to Mariners, giving changes in lights, buoys, etc., is published each week jointly by the Bureau of Lighthouses and the Coast and Geodetic Survey.

The report of the Commissioner of Lighthouses is published annually.

Requests to be placed on the mailing list to receive publications of the Bureau regularly should be addressed to the Division of Publications, Department of Commerce, Washington, D. C.

LIGHT LISTS.

- Atlantic and Gulf coasts of United States. Corrected to Jan. 1, 1915. 357 p.
- Pacific coast—United States, Canada, and Hawaiian [Midway, Guam] and Samoan Islands [Tutulla and Aunu]. Corrected to Jan. 1, 1915. 148 p.
- Great Lakes, United States, and Canada. Corrected to Apr. 1, 1915. 272 p.
- Upper Mississippi River and tributaries. 13th lighthouse district. Corrected to July 15, 1915. 269 p.
- Ohio, Tennessee, Kanawha, and Monongahela Rivers. 14th lighthouse district. Corrected to Sept. 15, 1914. 141 p.
- Lower Mississippi River and tributaries. 15th lighthouse district. Corrected to Oct. 20, 1914. 103 p.

BUOY LISTS.

- Atlantic coast of United States—Maine and New Hampshire. 1st lighthouse district. Corrected to Jan. 1, 1914. 61 p.
- Same, coast of Massachusetts. 2d lighthouse district. Corrected to Jan. 1, 1914. 54 p.
- Same, Narragansett Bay to Cape May, including New York Harbor. 3d lighthouse district. Corrected to May 15, 1915. 123 p.
- Same, Delaware Bay and River, including Philadelphia Harbor. 4th lighthouse district. Corrected to June 1, 1915. 32 p.
- Same, Cape Henlopen to Cape Lookout, including Chesapeake Bay and North Carolina Sounds. 5th lighthouse district. Corrected to May 15, 1915. 125 p.
- Same, Cape Lookout to Hillsboro Inlet. 6th lighthouse district. Corrected to Jan. 1, 1914. 52 p.
- Same, Florida Reefs, and Gulf coast to Cedar Keys. 7th lighthouse district. Corrected to Jan. 1, 1914. 33 p.
- Gulf coast of United States—Cedar Keys to Rio Grande. 8th lighthouse district. Corrected to Aug. 15, 1914. 50 p.
- West Indies—Porto Rico and adjacent islands. 9th lighthouse district. Corrected to Dec. 15, 1913. 17 p.

- Great Lakes—Lake Erie and Lake Ontario and St. Lawrence River.** 10th lighthouse district. Corrected to Apr. 1, 1915. 31 p.
- Same, Lake Huron and Lake Superior and connecting waters.** 11th lighthouse district. Corrected to Apr. 1, 1915. 61 p.
- Same, Lake Michigan and Green Bay.** 12th lighthouse district. Corrected to Apr. 1, 1915. 37 p.
- Pacific coast of United States—Alaska.** 16th lighthouse district. Corrected to June 1, 1915. 31 p.
- Same, Oregon and Washington.** 17th lighthouse district. Corrected to Jan. 1, 1914. 39 p.
- Same, California.** 18th lighthouse district. Corrected to Jan. 1, 1914. 26 p.
- Pacific islands of United States—Hawaiian [Midway, Guam] and Samoan Islands.** 19th lighthouse district. Corrected to July 1, 1915. 20 p.

MISCELLANEOUS PUBLICATIONS.

- Annual report of commissioner, 1914.** 102 p. [There are also on hand limited supply of each of annual reports since 1873, except those for 1879, 1881, 1882, 1883, 1886, 1902, 1905, and 1913.]
- Report upon fog-signal experiments; by Maj. William R. Livermore, Corps of Engineers, U. S. A.** 376 p. 74 pl. 1894.
- Aberrations of audibility of fog signals; by Arnold B. Johnson, chief clerk, Lighthouse Board.** 16 p. 1 pl. 1885.
- History of application of electric light to lighting coasts of France; by Maj. D. P. Heap, Corps of Engineers, U. S. A.** 31 p. 25 pl. 1883.
- Memoir upon lighthouse illumination of coasts of France. (Reynaud.) Translated by Rear Admiral Thornton A. Jenkins. U. S. N., naval secretary, Lighthouse Board.** 144 p. illus. 1871.
- Report upon exhibit of Lighthouse Board at World's Columbian Exposition, Chicago, 1893; by A. B. Johnson, chief clerk, Lighthouse Board.** 42 p. illus.
- Regulations for lighting bridges, 1915.** 14 p. 5 pl.
- Whitewash and cement-wash formulas.** 1 p.
- Whitewash formulas.** 1 p.

BUREAU OF NAVIGATION.

The following publications of the Bureau of Navigation are for free but judicious distribution so long as the Department editions are available. Requests should be addressed to the "Commissioner of Navigation, Department of Commerce, Washington, D. C." Copies of some of the publications may also be obtained from the Superintendent of Documents at the prices stated.

- Annual report of Commissioner, 1914.** 206 p. [There are also available few copies of reports for 1885, 1889, 1890, and 1894 to 1913, inclusive, except 1909 and 1912.]
- Merchant vessels of United States, with official numbers and signal letters, and lists of vessels belonging to United States Government, with distinguishing signals, year ended June 30, 1914.** 482 p. 75c.^a
- Seagoing vessels of United States, with official numbers and signal letters. Part 6 of 46th annual list of merchant vessels of United States, year ended June 30, 1914. (Printed exclusively for instruction of captains of sea-going vessels of United States.)** 135 p. illus. 25c.^{a b}
- Navigation laws of United States. May 18, 1911.** 547 p. \$1.^b
- Amendments to navigation laws of 1911. First supplement. Sept. 25, 1912.** 84 p. 5c.^b
- Same, second supplement. Apr. 5, 1913.** 12 p. 5c.^b
- Same, third supplement. Dec. 1, 1914.** 16 p. 5c.^b

^a Merchant Vessels of the United States, 1914, and Seagoing Vessels of the United States, 1914, were also printed under one cover as H. doc. 1449, 63d Cong., 3d sess., and copies may be obtained from the Superintendent of Documents at \$1 each.

^b Available only from Superintendent of Documents at price stated.

Rules for the St. Marys River. Apr. 15, 1911. 14 p.

Radio laws and regulations of United States. July 27, 1914. 100 p. 15c.

Radio stations of United States. July 1, 1914. 155 p. 15c.

Same, supplement No. 1. Oct. 1, 1914. 4 p.

Radio service bulletin, Nos. 1-6, Jan.-June, 1915. Various paging. 5c.; 25c. per annum.*

BUREAU OF STANDARDS.

In addition to the tests and comparisons made by the Bureau of Standards, its work includes such researches as are involved in the establishment and maintenance of the various standards and units of measurement, the development of measuring instruments and methods of measurement, the determination of physical constants and the properties of materials. The results of these investigations are published in pamphlet form. They cover a wide range of subjects in the field of physical measurements and are issued for general distribution to the scientific, technical, and industrial interests concerned with the subjects treated.

With the exception of a few miscellaneous reports, publications of the Bureau for limited free distribution are issued in three series, designated "Scientific Papers," "Technologic Papers," and "Circulars." The Scientific Papers are also collated and bound from time to time in the form of a Bulletin, which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential. To others the Bulletin is sold by the Superintendent of Documents at 25 cents per copy, or \$1 per annum. Four copies are issued each year, and the four copies constitute one volume. To date 11 volumes have been issued. The complete set, containing 222 Scientific Papers, is sold by the Superintendent of Documents at \$11; volumes bound in cloth, \$16.50.

SCIENTIFIC PAPERS.

Nos. 1 to 25 reprints from Bulletin, volume 1, 1904-5.

1. Recomparison of United States prototype meter; by L. A. Fischer. 17 p. 5c.
4. Spectra of mixed gases; by P. G. Nutting. 7 p. 5c.
5. Secondary spectra and conditions under which they may be produced; by P. G. Nutting. 14 p. 15c.
6. Some new rectifying effects in conducting gases; by P. G. Nutting. 8 p. 2 text fig. 5c.
7. Fibers resembling fused quartz in their elastic properties; by K. E. Gutha. 9 p. 10c.
8. Temperature of arc; by C. W. Waldner and G. K. Burgess. 18 p. 5c.
9. Absolute measurement of inductance; by E. B. Rosa and F. W. Grover. 30 p. 10c.
10. Absolute measurement of capacity; by E. B. Rosa and F. W. Grover. 37 p. 8 pl. 14 text fig. 5c.^b
11. Optical pyrometry; by C. W. Waldner and G. K. Burgess. 66 p. 10c.
12. Testing of clinical thermometers; by C. W. Waldner and L. A. Fischer. 17 p. 10 pl. 15c.
14. Measurement of inductance by Anderson's method, using alternating currents and vibration galvanometer; by E. B. Rosa and F. W. Grover. 48 p. 17 text fig. 15c.

* Issued monthly, and supersedes quarterly supplements to list of Radio Stations of United States. Contains amendments to or changes in Radio Laws and Regulations, items of general interest concerning enforcement of radio laws, and latest information concerning Government, commercial, and special radio stations. Information regarding amateur stations will appear only in annual edition of list of Radio Stations.

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15. Use of serpentine in standards of inductance; by E. B. Rosa and F. W. Grover. 14 p. 1 pl. 5 text fig. 10c.
17. History of standard weights and measures of United States; by L. A. Fischer. 19 p. 3 pl. 10c.
18. Wattmeter methods of measuring power expended upon condensers and circuits of low power factor; by Edward B. Rosa. 17 p. 11 text fig. 10c.
19. Relative intensities of metal and gas spectra from electrically conducting gases; by P. G. Nutting. 20 p.
20. Use of white walls in photometric laboratory; by Edward P. Hyde. 6 p. 2 text fig. 5c.
21. Influence of wave form on rate of integrating induction wattmeters; by E. B. Rosa, M. G. Lloyd, and C. E. Reid. 16 p. 10 text fig. 10c.
22. Detector for very small alternating currents and electrical waves; by L. W. Austin. 6 p. 3 text fig. 5c.^a
23. Positive charges carried by canal rays; by L. W. Austin. 5 p. 5c.
24. Radiation from platinum at high temperatures; by G. K. Burgess. 7 p. 5c.
25. Five-thousand volt generator set; by P. G. Nutting. 5 p. 5c.

Nos. 26 to 46 reprints from Bulletin, volume 2, 1906.

26. Talbot's law as applied to rotating sectored disk; by Edward P. Hyde. 34 p. 15c.
27. New determination of electromotive force of Weston and Clark standard cells by absolute electro-dynamometer; by K. E. Guthe. 40 p. 2 pl. 4 text fig. 5c.
28. Gray absolute electro-dynamometer; by Edward B. Rosa. 18 p. 4 text fig. 5c.
29. Construction and calculation of absolute standards of inductance; by J. G. Coffin. 59 p. 14 text fig. 10c.
30. Efficiency meter for electric incandescent lamps; by E. P. Hyde and H. B. Brooks. 18 p. 1 pl. 2 text fig. 10c.
31. Calculation of self-inductance of single-layer coils; by Edward B. Rosa. 29 p. 5 text fig. 10c.
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45. Radiometric investigations of infra-red absorption and reflection spectra; by W. W. Coblentz. 24 p. 5c.
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- 166. Capacity and phase difference of paraffined paper condensers as functions of temperature and frequency; by F. W. Grover. 86 p. 30 text fig.
- 167. Steam-turbine expansion line on Mollier diagram and short method of finding reheat factor; by Edgar Buckingham. 41 p. 1 pl. 9 text fig. 10c.
- 168. Radiometric investigation of water of crystallization, light filters, and standard absorption bands; by W. W. Coblentz. 47 p. 17 text fig. 10c.

Nos. 169 to 186 reprints from Bulletin, volume 8, 1911-12.

170. Correction for emergent stem of mercurial thermometer; by Edgar Buckingham. 31 p. 2 text fig. 5c.
171. Determination of international ampere in absolute measure; by E. B. Rosa, N. E. Dorsey, and J. M. Miller. 127 p. 3 pl. 21 text fig. 20c.
172. Deflection potentiometers for current and voltage measurements; by H. B. Brooks. 25 p. 2 pl. 8 text fig. 10c.
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181. Four-terminal conductor and Thomson bridge; by Frank Wenner. 54 p. 12 text fig. 5c.
182. Standardization of potassium permanganate solution by sodium oxalate; by R. S. McBride. 34 p. 1 text fig. 5c.
183. Benzoic acid as acidimetric standard; by George W. Morey. 10 p. 5c.
184. Tubular electrodynamicometer for heavy currents; by P. G. Agnew. 8 p. 2 text fig. 5c.
185. Thermometric lag; by D. R. Harper 3d. 58 p. 11 text fig. 10c.
186. Determination of manganese as sulphate and by sodium bismuthate method; by William Blum. 28 p. 5c.^a

Nos. 187 to 203 reprints from Bulletin, volume 9, 1912-13.

187. New precision colorimeter; by P. G. Nutting. 5 p. 1 pl. 1 text fig. 5c.
188. Instruments and methods used in radiometry, II; by W. W. Coblentz. 59 p. 17 text fig. 10c.
189. Antenna resistance; by L. W. Austin. 10 p. 7 text fig. 5c.
190. Energy losses in some condensers used in high-frequency circuits; by L. W. Austin. 10 p. 3 text fig. 5c.^a
191. Selective radiation from various substances, IV; by W. W. Coblentz. 39 p. 12 text fig. 10c.
192. Modified form of stability tests for smokeless powder and similar materials; by H. C. P. Weber. 13 p. 2 text fig. 5c.
193. Atomic weight of bromide; by H. C. P. Weber. 22 p. 2 text fig. 5c.
194. Silver voltameter, Part I; by E. B. Rosa and G. W. Vinal. 59 p. 5 pl. 6 text fig. 10c.
195. Same, Part II; by E. B. Rosa, G. W. Vinal, and A. S. McDaniel. 76 p. 5 pl. 3 text fig. 20c.
196. Diffuse reflecting power of various substances; by W. W. Coblentz. 45 p. 3 text fig. 10c.
197. Density and thermal expansion of ethyl alcohol and its mixtures with water; by N. S. Osborne, F. C. McKelvy, and H. W. Bearce. 157 p. 1 pl. 11 text fig. 25c.
198. Micropyrometer; by George K. Burgess. 6 p. 1 pl. 1 text fig. 5c.
199. Simplified formula for change in order of interference due to changes in temperature and pressure of air; by Irwin G. Priest. 5 p. 5c.

200. New calorimetric resistance thermometers; by H. C. Dickinson and R. F. Mueller. 12 p. 1 pl. 1 text fig. 5c.
201. Silver voltameter, Part III; by E. B. Rosa, G. W. Vinal, and A. S. McDaniel. 61 p. 3 text fig. 10c.
202. Note on cold-junction corrections for thermocouples; by P. D. Foote. 15 p. 4 text fig. 5c.
203. Analysis of alternating-current waves by method of Fourier, with special reference to methods of facilitating computations; by F. W. Grover. 82 p. 6 text fig. 3 tab. 20c.

Nos. 204 to 222 reprints from Bulletin, volume 10, 1913.

204. Constants of spectral radiation of uniformly heated inclosure, or so-called black body, I; by W. W. Coblentz. 79 p. 1 pl. 6 text fig. 10c.
205. Melting points of refractory elements. I. Elements of atomic weight from 48 to 59. By G. K. Burgess and R. G. Waltenberg. 14 p. 2 pl. 5c.
206. High-frequency ammeters; by J. H. Dellinger. 71 p. 34 text fig. 10c.
207. Comparative study of American direct-current watt-hour meters; by T. T. Fitch and C. J. Huber. 82 p. 3 pl. 18 text fig. 15c.
208. Windage resistance of steam-turbine wheels; by Edgar Buckingham. 46 p. 10c.
209. Latent heat of fusion of ice; by H. C. Dickinson, D. R. Harper 3d, and N. S. Osborne. 34 p. 2 pl. 7 text fig. 10c.
210. Observations on ocean temperatures in vicinity of icebergs and in other parts of ocean; by C. W. Waldner, H. C. Dickinson, and J. J. Crowe. 14 p. 5 pl. 6 charts. 10c.
211. Accuracy of formulas for ratio, regulation, and phase angle of transformers; by P. G. Agnew and F. B. Silsbee. 17 p. 7 text fig. 5c.
212. Melting points of some refractory oxides; by C. W. Kanolt. 21 p. 6 text fig. 5c.
213. Critical ranges A2 and A3 of pure iron; by G. K. Burgess and J. J. Crowe. 58 p. 3 pl. 14 p. of pl. 8 text fig. 20c.
214. Note on setting of mercury surface to required height; by M. H. Stillman. 6 p. 3 pl. 10c.
215. Micrometer microscopes; by Arthur W. Gray. 18 p. 4 text fig. 5c.
216. Pentane lamp as working standard; by E. C. Crittenden and A. H. Taylor. 29 p. 4 text fig. 5c.
217. Testing potential transformers; by H. B. Brooks. 8 p. 1 text fig. 5c.
218. Comparison of silver and iodine voltammeters and determination of value of faraday; by G. W. Vinal and S. J. Bates. 28 p. 2 pl. 2 text fig. 10c.
219. Production of temperature uniformity in electric furnace; by A. W. Gray. 25 p. 4 pl. 9 text fig. 15c.
220. Silver voltameter, Part IV. Third series of quantitative experiments and special investigations. By E. B. Rosa, G. W. Vinal, and A. S. McDaniel. 64 p. 2 pl. 7 text fig. 10c.
221. Influence of atmospheric conditions in testing of sugars; by Frederick Bates and Francis P. Phelps. 21 p. 2 text fig. 10c.
222. Flame standards in photometry; by E. B. Rosa and E. C. Crittenden. 41 p. 5 text fig. 10c.
- Title-page and contents for Bulletin, vol. 10, 1914. 3 p. 5c.
- Decennial Index to Bulletin, vols. 1-10, inclusive, 1904-1914. Scientific Paper [unnumbered]. 19 p. 10c.

Nos. 223 to 244 reprints from Bulletin, volume 11, 1914.

223. Testing of potentiometers; by Frank Wenner and Ernest Weibel. 42 p. 1 pl. 21 text fig. 15c.
224. Emissivity of metals and oxides. I. Nickel oxide (NiO) in range 600° to 1,300° C.; by G. K. Burgess and P. D. Foote. 26 p. 11 text fig. 10c.*
225. Adjustments of Thomson bridge in measurement of very low resistances; by F. Wenner and E. Weibel. 6 p. 2 text fig. 5c.

226. Quantitative experiments in radiotelegraphic transmission; by L. W. Austin. 20 p. 3 text fig. 5c.
227. Measurement on standards of radiation in absolute value; by W. W. Coblenz. 16 p. 5c.
228. Experimental study of Koepel permeator; by Charles W. Burrows. 32 p. 1 pl. 16 text fig. 10c.
229. Various modifications of bismuth-silver thermopiles having continuous absorbing surface; by W. W. Coblenz. 59 p. 3 pl. 7 text fig. 20c.
230. Combustion calorimetry and heats of combustion of cane sugar, benzoic acid, and naphthalene; by H. O. Dickinson. 71 p. 2 pl. 8 text fig. 15c.
231. Specific heat of copper in interval 0° to 50° C., with note on vacuum-jacketed calorimeters; by D. R. Harper, 3d. 73 p. 5 text fig. 3 pl. 1 plaster. 25c.
232. Equilibrium in the system: Lead acetate, lead oxide, and water, at 25°; by Richard F. Jackson. 17 p. 1 diag. 5c.
233. Watthour meter method of testing instrument transformers; by P. G. Agnew. 13 p. 4 text fig. 5c.
234. Insulating properties of solid dielectrics; by Harvey L. Curtis. 66 p. 29 text fig. 15c.
235. Direct-reading instrument for measuring logarithmic decrement and wave length of electromagnetic waves; by Frederick A. Kolster. 37 p. 3 pl. 2 pasters, 18 text fig. 10c.
236. Electrical resistance and critical ranges of pure iron; by G. K. Burgess and I. N. Kellberg. 16 p. 3 text fig. 5c.
237. Absorption, reflection and dispersion constants of quartz; by W. W. Coblenz. 13 p. 2 text fig. 5c.
238. Characteristic equations of tungsten filament lamps and their application in heterochromatic photometry; by G. W. Middlekauff and J. F. Skogland. 54 p. 3 text fig. 10c.
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240. Studies on silver voltameter; by G. A. Hulett and G. W. Vinal. 20 p. 3 text fig. 10c.
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242. Emissivity of metals and oxides: II. Measurements with micropyrometer; by G. K. Burgess and R. G. Waltenberg. 17 p. 5c.
243. Emissivity of metals and oxides: III. Total emissivity of platinum and relation between total emissivity and resistivity; by Paul D. Foote. 3 p. 1 text fig. 5c.^a
244. Comparison of stellar radiometers and radiometric measurements on 110 stars; by W. W. Coblenz. 46 p. 2 p. of pl. 2 text fig. 15c.
- Title-page and contents for Bulletin, vol. 11, 1915. 4 p.

Nos. 245 to 249 reprints from Bulletin, volume 12, 1915.

245. Temperature coefficient of magnetic permeability within working range; by Raymond L. Sanford. 15 p. 5 text fig. 5c.
246. Methods of measuring inductances of low-resistance standards; by Frank Wenner, Ernest Weibel, and F. B. Silsbee. 15 p. 4 text fig. 5c.
249. Emissivity of metals and oxides: IV. Iron oxide; by George K. Burgess and Paul D. Foote. 9 p. 2 text fig. 5c.

TECHNOLOGIC PAPERS.

1. Effect of preliminary heating treatment upon drying of clays; by A. V. Bleininger. Dec. 6, 1910. 53 p. 1 pl. 12 text fig. 10c.^a
2. Strength of reinforced concrete beams. Results of tests of 333 beams (1st series). By R. L. Humphrey and L. H. Losse. June 27, 1911. 200 p. 11 pl. 11 charts, 33 text fig. 50c.

^a Available only from Superintendent of Documents at price stated.

3. Tests of absorptive and permeable properties of Portland cement mortars and concretes, together with tests of damp-proofing and waterproofing compounds and materials; by R. J. Wig and P. H. Bates. Aug. 22, 1911. 127 p. 6 pl. 64 text fig. 20c.
4. Effect of added fatty and other oils upon carbonization of mineral lubricating oils; by C. E. Waters. Aug. 24, 1911. 14 p. 5c.
5. Effect of high-pressure steam on crushing strength of Portland cement mortar and concrete; by R. J. Wig. Sept. 5, 1911. 25 p. 2 pl. 6 text fig. 10c.
6. Determination of chromium, and its separation from vanadium, in steels; by J. R. Cain. Nov. 1, 1911. 6 p. 5c.
7. Testing of clay refractories, with special reference to their load-carrying capacity at furnace temperatures; by A. V. Bleininger and G. H. Brown. Dec. 15, 1911. 78 p. 30 text fig. 15c.
8. Rapid method for determination of vanadium in steels, ores, etc., based on its quantitative inclusion by phosphomolybdate precipitate; by J. R. Cain and J. C. Hostetter. Oct. 26, 1911. 20 p. 2 text fig. 5c.
9. Density and thermal expansion of linseed oil and turpentine; by Henry W. Bearce. Apr. 15, 1912. 27 p. 10c.
10. Melting points of fire bricks; by O. W. Kanolt. June 15, 1912. 17 p. 2 pl. 8 text fig. 5c.
11. Comparison of five methods used to measure hardness; by Ralph P. Devries. July 22, 1912. 27 p. 1 pl. 11 text fig.
12. Action of salts in alkali water and sea water on cements; by P. H. Bates, A. J. Phillips, and R. J. Wig. Nov. 1, 1912. 157 p. 8 pl. 45 text fig. 25c.
13. Evaporation test for mineral lubricating and transformer oils; by C. E. Waters. Jan. 1, 1913. 13 p. 5c.
14. Legal specifications for illuminating gas; by E. B. Rosa and R. S. McBride. Jan. 10, 1913. 81 p. 10c.^a
15. Surface insulation of pipes as means of preventing electrolysis; by Burton McCollum and O. S. Peters (with experience and opinions of pipe-owning companies with regard to prevention of electrolysis and soil corrosion by means of insulating coatings). Jan. 5, 1914. 44 p. 3 pl. 2 text fig. 15c.
16. Manufacture of lime; by Warren E. Emley. Feb., 1913. 130 p. 13 pl. 8 text fig. 25c.
17. Function of time in vitrification of clays; by G. H. Brown and G. A. Murray. May 20, 1913. 26 p. 1 pl. 19 text fig. 5c.
18. Electrolysis in concrete; by E. B. Rosa, Burton McCollum, and O. S. Peters. Mar. 19, 1913. 137 p. 9 pl. 24 text fig. 20c.^a
19. Physical testing of cotton yarns; by Walter S. Lewis. Apr. 1, 1913. 31 p. 1 text fig. 10c.
20. Determination of sulphur in illuminating gas; by R. S. McBride and E. R. Weaver. Mar. 7, 1913. 46 p. 14 text fig. 10c.
21. Dehydration of clays; by G. H. Brown and E. T. Montgomery. Apr. 25, 1913. 23 p. 9 text fig. 5c.^a
22. Effect of overfiring upon structure of clays; by A. V. Bleininger and E. T. Montgomery. May 15, 1913. 23 p. 8 text fig. 5c.
23. Technical control of colloidal matter of clays; by H. E. Ashley. Nov., 1911. 118 p. 8 pl. 11 text fig. 15c.
24. Determination of phosphorus in steels containing vanadium; by J. R. Cain and F. H. Tucker. May 17, 1913. 11 p. 5c.
25. Electrolytic corrosion of iron in soils; by Burton McCollum and K. H. Logan. June 12, 1913. 69 p. 10 text fig. 15c.
27. Special studies in electrolysis mitigation. 1. Preliminary study of conditions in Springfield, Ohio, with recommendations for mitigation. By E. B. Rosa and Burton McCollum. June 19, 1913. 55 p. 3 maps, 6 text fig. 15c.
29. Variations in results of sieving with standard cement sieves; by R. J. Wig and J. C. Pearson. Aug. 1, 1913. 16 p. 1 text fig. 5c.

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30. Viscosity of porcelain bodies; by A. V. Bleininger and Paul Teetor. Nov. 20, 1913. 11 p. 5 text fig. 5c.
31. Some leadless borosilicate glazes maturing at about 1100° C.; by E. T. Montgomery. Dec. 15, 1913. 22 p. 1 text fig. 5c.
32. Special studies in electrolysis mitigation. 2. Electrolysis from electric railway currents and its prevention, experimental test on system of insulated negative feeders in St. Louis. By E. B. Rosa, Burton McCollum, and K. H. Logan. Dec. 27, 1913. 34 p. 2 maps. 5c.
33. Determination of carbon in steel and iron by barium carbonate titration method; by J. R. Cain. Jan. 31, 1914. 12 p. 1 text fig. 5c.
34. Determination of ammonia in illuminating gas; by J. D. Edwards. Mar. 2, 1914. 23 p. 6 text fig. 10c.
35. Combustion method for direct determination of rubber; by L. G. Wesson. Feb. 13, 1914. 11 p. 1 text fig. 5c.
36. Industrial gas calorimetry; by C. W. Waldner and E. F. Mueller. Mar. 1, 1914. 150 p. 18 pl. 13 text fig. 40c.
37. Iodine number of linseed and petroleum oils; by W. H. Smith and J. B. Tuttle. Apr. 28, 1914. 17 p. 7 text fig. 10c.
38. Observations on finishing temperatures and properties of rails; by G. K. Burgess, J. J. Crowe, H. S. Rawdon, and R. G. Waltenberg. Apr. 23, 1914. 63 p. 5 pl. 11 text fig. 35c.
39. Analysis of printing inks; by J. B. Tuttle and W. H. Smith. June 12, 1914. 20 p. 10c.
40. Veritas firing rings; by A. V. Bleininger and G. H. Brown. June 5, 1914. 10 p. 4 text fig. 5c.
41. Lead acetate test for hydrogen sulphide in gas; by R. S. McBridge and J. D. Edwards. Aug. 19, 1914. 46 p. 11 pl. 7 text fig. 25c.
42. Standardization of No. 200 cement sieves; by Rudolph J. Wig and J. C. Pearson. July 30, 1914. 51 p. 4 pl. 1 text fig. 10c.
43. Hydration of Portland cement; by A. A. Klein and A. J. Phillips. Apr. 18, 1914. 71 p. 6 pl. 9 text fig. 20c.
45. Study of some recent methods for determination of total sulphur in rubber; by J. B. Tuttle and A. Isaacs. May 5, 1915. 16 p. 5c.
46. Study of Atterberg plasticity method; by Charles S. Kinnison. May 25, 1915. 18 p. 3 text fig. 5c.

BUREAU CIRCULARS.

2. Measurements of length and area, including thermal expansion. 5th ed. Apr. 30, 1915. 21 p.
5. Testing of clinical thermometers. 2d ed. June 30, 1911. 14 p. 5c.
6. Fees for electric, magnetic, and photometric testing. 6th ed. Oct. 1, 1914. 27 p. 10c.
7. Pyrometer testing and heat measurements. 5th ed. Oct. 1, 1913. 19 p. 5c.
8. Testing of thermometers. 2d ed. June 30, 1911. 52 p. 1 text fig.
9. Testing of glass volumetric apparatus. 7th ed. Oct. 1, 1914. 31 p. 10 text fig. 10c.
10. Legal weights (in pounds) per bushel of various commodities. 2d ed. May 15, 1911. 10 p. 5c.*
11. Standardization of bomb calorimeters. May 15, 1911. 10 p.
13. Standard specifications for incandescent electric lamps. 6th ed. Jan. 1, 1914. 20 p. 5c.*
14. Analyzed irons and steels, methods of analysis. 4th ed. July 15, 1913. 15 p.
15. International unit of light. 3d ed. July 1, 1911. 7 p. 5c.
16. Testing of hydrometers. 3d ed. Jan. 15, 1914. 16 p. 1 pl. 1 text fig. 5c.
18. Standard gage for sheet and plate iron and steel. 2d ed. July 1, 1911. 4 p. 5c.

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19. Standard density and volumetric tables. 4th ed. Apr. 1, 1914. 54 p. [Also Supplement. Master scales for graduation of hydrometers. 9 p.] 5c.
20. Testing of electrical measuring instruments. 2d ed. May 28, 1915. 57 p. 15c.
23. Standardization of electrical practice in mines. July 15, 1910. 93 p. 15c.
24. Publications of Bureau of Standards. 4th ed. July 1, 1913. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstracts of each title.] 54 p. [Also Supplement. Apr. 1, 1915. 20 p.]
25. Standard analyzed samples. General information. 5th ed. Sept. 1, 1913. 12 p. [Also Insert. 4 p.] 5c.^a
26. Analyzed iron and manganese ores, methods of analysis. 3d ed. May 26, 1913. 20 p. 5c.
28. Determination of optical properties of materials. Mar. 1, 1911. 19 p. 5c.^a
29. Announcement of change in value of international volt. Dec. 31, 1910. 13 p. 5c.^a
30. Lime: Its properties and uses. Apr. 15, 1911. 22 p. 5c.
31. Copper-wire tables. 3d ed. Oct. 1, 1914. 76 p. 3 text fig. 10c.
32. Standards for gas service. 3d ed. Mar. 10, 1915. 197 p. 35c.
33. United States Government specification for Portland cement. 2d ed. July 1, 1913. 28 p. 10 text fig. 10c.
34. Relation of horsepower to kilowatt. 3d ed. May 15, 1915. 16 p. 5c.
35. Melting points of chemical elements. 2d ed. Jan. 1, 1915. 2 p. 5c.
36. Testing and properties of electric condensers. June 30, 1912. 26 p. 1 chart, 2 text fig. 5c.
37. Electric wire and cable terminology. 2d ed. Jan. 1, 1915. 13 p. 15 text fig. 5c.
38. Testing of mechanical rubber goods. 2d ed. Apr. 5, 1913. 39 p. 20 text fig. 5c. [Also Supplement. Preliminary report of joint rubber insulation committee. Oct. 1, 1913. 16 p.]
39. Specifications for and measurement of standard sieves. 1912. 14 p. 5c.^a
40. Sodium oxalate as standard in volumetric analysis. 2d ed. May 15, 1913. 13 p. 5c.
41. Testing and properties of textile materials. Apr. 15, 1913. 16 p. 5c.^a
42. Metallographic testing. Sept. 1, 1913. 16 p. 5c.
43. Metric carat. Nov. 1, 1913. 12 p. 5c.
44. Polarimetry (and polarimetric analysis of raw and other sugars). Jan. 15, 1914. 140 p. 2 pl. 9 text fig. 35c. [Supersedes Cir. 12.]
45. Testing of materials. Nov. 1, 1913. 89 p.
46. Testing of barometers. 2d ed. July 15, 1914. 12 p. 5c.
47. Units of weight and measure; definitions and tables of equivalents. July 1, 1914. 68 p. 15c. [Supersedes miscellaneous publication, "Tables of equivalents of United States customary and metric weights and measures."]
48. Standard methods of gas testing. Aug. 1, 1914. 180 p. 1 pl. 15 text fig. 35c.
49. Safety rules to be observed in operation of electrical equipment and lines. (Part 4 of Proposed national electrical safety code.) 2d ed. May 4, 1915. 50 p. 10c.
50. National standard hose couplings and fittings for public fire service. Nov. 25, 1914. 23 p. 1 pl. 4 text fig. 10c.
51. Measurement of time and tests of timepieces. Dec. 1, 1914. 39 p. 1 pl. 7 text fig. 15c.
52. Regulation of electrotyping solutions. Jan. 25, 1915. 13 p. 1 text fig. 5c.
53. Composition, properties, and testing of printing inks. Mar. 29, 1915. 35 p. 10c.
54. Proposed national electrical safety code. Apr. 29, 1915. 25c.

^a Available only from Superintendent of Documents at price stated.

MISCELLANEOUS.

- Annual report of Director, 1914. 99 p. [There are also available copies of annual reports for 1901, 1903-1910, and 1912-1913, inclusive.^a
- International metric system. (Chart.)
- International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.
- State and national laws concerning weights and measures of United States. 2d ed. 564 p. 1912. 85c.^b
- First conference on weights and measures of United States. Jan. 16, 17, 1905. 46 p. 10c.
- Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.
- Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.
- Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.
- Fifth annual conference on weights and measures of United States. Feb. 25, 26, 1910. 123 p. 15c.
- Sixth annual conference on weights and measures of United States. Feb. 17, 18, 1911. 158 p. 1 text fig. 20c.
- Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.
- Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.
- Ninth annual conference on weights and measures of United States. May 26-29, 1914. 176 p. 1 pl. 8 text fig. 20c.
- National Bureau of Standards. Description of work of Bureau. 24 p.
- Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan. 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]

STEAMBOAT-INSPECTION SERVICE.

Two regular publications are issued by the Steamboat-Inspection Service, as follows:

Report of the Supervising Inspector General. (Annual.)

List of Officers of Merchant Steam, Motor, and Sail Vessels Licensed During the Fiscal Year Ending June 30 for a Period of Five Years. (Annual.)

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest available editions of the publications are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General, 1914. 49 p. [There are also available copies of annual reports for 1911 and 1912.]

^a Copies of the annual reports of the Director may be obtained from the Superintendent of Documents as follows: 1905, 5c.; 1906, 10c.; 1909, 5c.; 1911, 5c.; 1912, 5c.

^b Available only from Superintendent of Documents at prices stated.

List of officers of merchant steam, motor, and sail vessels licensed during year ended June 30, 1913, for period of five years. 270 p.^a

Laws governing Steamboat-Inspection Service. Ed. Apr. 4, 1915. 86 p.

General rules and regulations prescribed by Board of Supervising Inspectors, as amended Jan., 1914, and further amended June 22-23, 1914. Ed. July 22, 1914. 355 p. 19 text fig.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. September 1, 1914. 34 p. 5 text. fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.

^a Edition for 1914 entirely exhausted.



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NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications, many of which are intended for free but judicious distribution.

This pamphlet, which contains a complete list of the publications of the Department available for distribution, revised and corrected to date of issue, is published twice each year and contains general information concerning the publications issued by the Department. There is also published each month a list of publications issued by the Department during that month. Persons desiring to have their names placed on the mailing list to receive copies of either the complete list or the monthly list should address the "Chief, Division of Publications, Department of Commerce, Washington, D. C."

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and where prices are given in this list they can also be purchased from the "Superintendent of Documents, Office of the Public Printer, Washington, D. C.," to whom remittances should be sent direct, as his office is not a part of the Department of Commerce. For the convenience of the general public, coupons that are good until used in exchange for Government publications sold by the Superintendent of Documents may be purchased from his office in sets of 20 for \$1.

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Coast Pilots, Inside Route Pilots, Tide Tables, and Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address, and stating specifically the publication or publications received by them. The Department should also be notified promptly when publications are no longer desired.

DAN C. VAUGHAN,
Chief, Division of Publications.

PUBLICATIONS OF THE DEPARTMENT OF COMMERCE AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1915. 239 p. 2 litho. 2 pl. 7 text fig. [There is also on hand limited supply of Secretary's report for each of years 1903 to 1914, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated], 1914. 834 p. 5 pl. 1 map, 20 text fig. [There is also on hand limited supply of consolidated reports of Department for each of years 1904, 1905, 1909, 1911, 1912, and 1913.]

Annual report of Chief of Appointment Division, 1915. 24 p. [There are also available copies of each annual report from 1910 to 1914, inclusive.]

Annual report of Chief of Division of Publications, 1915. 40 p. [There are also available each annual report from 1907 to 1914, inclusive.]

Condensed history, duties, and practical operation of Department and its several bureaus and offices. July 1, 1913. 63 p.

Same, together with laws relating specifically thereto. July 1, 1913. 211 p.

List of publications of Department available for distribution. 13th ed. February 1, 1916. 78 p.

List of publications issued by Department. 4 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6, 1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are supplied to applicants without expense so long as the editions allowed for free distribution will permit, and can also be purchased at prices

stated in this list from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1880) REPORTS.

- Agriculture:** Including cereal production; flour-milling processes; tobacco; meat production. 1149 p. \$1.50.^a
- Compendium of Tenth Census of United States, 1880.** — p. \$1.10.^a
- Same, revised edition, pt. 1, 1885. — p. 65c.^a
- Same, revised edition, pt. 2, 1888. — p. 55c.^a
- Cotton production:** pt. 1, Mississippi Valley and Southwestern States. 924 p. \$1.30.
- Same: pt. 2, Eastern Gulf, Atlantic, and Pacific States. 848 p. \$1.30.
- Defective, dependent, and delinquent classes of population** (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p. 75c.
- Forests of North America, 1884.** 622 p. \$1.25.^a
- History and present condition of fishery industries.** — p. 25c.^a
- Maps accompanying above.** \$1.25.^a
- Manufactures:** Including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass. 1248 p. \$1.50.^a
- Mining industries** (exclusive of precious metals). 1064 p. \$2.
- Mining laws and regulations—United States, State, Territorial, and local.** 716 p. \$1.10.
- Mortality and vital statistics:** pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p. \$1.20.^a
- Same: pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 902 p. \$1.00.
- Plates and diagrams accompanying part 2 of report on mortality and vital statistics, 1880.** 65c.^a
- Newspaper and periodical press; Alaska; seal islands; shipbuilding.** 1122 p. \$1.60.^a
- Oyster industry.** 251 p. Half leather, \$1; cloth, 50c.
- Petroleum, coke, and building stones.** 872 p. \$1.75.^a
- Population:** By States, counties, and minor civil divisions, with distinction of race, sex, age, nativity, and occupations, together with summary tables relating to newspapers and periodicals; public schools; illiteracy; the dependent, defective, and delinquent classes. 1054 p. \$1.50.^a
- Power and machinery employed in manufactures, and ice industry of United States.** 606 p. 85c.
- Precious metals, statistics and technology of.** 558 p. \$1.^a
- Social statistics of cities:** pt. 1, New England and Middle States. Includes streets, street railways, public buildings and works, sanitation, Government schools, and commerce and industry. 924 p. \$1.50.^a
- Same: pt. 2, Southern and Western States, 1880. 850 p. \$1.35.^a
- Transportation agencies in United States.** 870 p. \$1.25.^a
- Valuation, taxation, and public indebtedness.** 920 p. \$1.35.
- Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts.** 792 p. \$1.10.^a
- Water power of United States, 1885:** pt. 1. 874 p. \$1.25.^a
- Same, 1887: pt. 2. 788 p. \$1.^a

^a Available only from Superintendent of Documents at price stated.

ELEVENTH CENSUS (1890) REPORTS.

- Abstract. 312 p. 25c.^a
- Agriculture by irrigation. 946 p. \$1.50.^a
- Agriculture by irrigation. 336 p. 80c.^a
- Alaska population and resources of. 294 p. \$1.15.^a
- Annual report of Superintendent of the Census, 1889, — p., 5c.;^a 1890, — p., 5c.;^a 1895, — p., 5c.;^a 1896, — p., 5c.;^a 1897, — p., 5c.^a
- Churches. 840 p. \$1.10.
- Compendium: pt. 1, Population; dwellings and families; Alaska. 1098 p. \$1.15.
- Same: pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1070 p. \$1.10.
- Same: pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians, taxed and not taxed. 1158 p. \$1.05.^a
- Crime, pauperism, and benevolence in United States: pt. 1, Analysis. 420 p. 70c.^a
- Same: pt. 2, General tables. 1048 p. \$1.^a
- Eastern Cherokees of North Carolina. 24 p. 25c.
- Education. 141 p.
- Farms and homes, proprietorship, and indebtedness in United States, 1896. 658 p. \$1.10.^a
- Five Civilized Tribes in Indian Territory. 70 p. 25c.
- Indians taxed and not taxed. 692 p. \$2.35.^a
- Insane, feeble-minded, deaf and dumb, and blind. 768 p. \$1.10.^a
- Insurance business: pt. 1, Fire, marine, and inland insurance. 1138 p. \$1.^a
- Same: pt. 2, Life insurance. 490 p. 70c.^a
- Manufacturing industries in United States: pt. 1, Totals for States and industries. 1002 p. \$1.^a
- Same: pt. 2, Statistics of cities. 827 p. 95c.^a
- Same: pt. 3, Selected industries. 733 p. 85c.^a
- Mineral industries. 874 p. \$1.50.
- Occupations, census of 1890. 127 p. 15c.
- Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; foreign parentage; conjugal condition; school, militia, and voting ages; dwellings and families; Indians; Alaska. 1181 p. \$1.35.^a
- Same: pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1140 p. \$1.10.^a
- Population of United States by minor civil divisions as returned at Eleventh Census, June 1, 1890. — p. 60c.^a
- Real estate mortgages. 956 p. \$1.15.
- Social statistics of cities in United States. 146 p. 50c.^a
- Statistical atlas of United States based upon results of Eleventh Census. 70 p. \$4.^a
- Table showing publications and cost of each census of United States. 1896. 5c.^a
- Textiles, census of 1890. 226 p.
- Transportation business in United States: pt. 1, Transportation by land. 875 p. 95c.^a
- Same: pt. 2, Transportation by water. 532 p. 70c.^a
- Vital and social statistics; pt. 1, Analysis and rate tables. 1077 p. \$1.40.^a
- Same: pt. 2, Cities of 100,000 population and upward. 1191 p. \$1.35.^a
- Same: pt. 3, Statistics of deaths. 1057 p. \$1.^a

^a Available only from Superintendent of Documents at price stated.

- Vital and social statistics: pt. 4, Statistics of deaths. 1039 p. \$1.^a
 Vital statistics covering period of six years ended May 3, 1890; Boston and Philadelphia. 278 p. 75c.^a
 Same: District of Columbia and Baltimore. 250 p. 75c.^a
 Same: New York and Brooklyn. 538 p. \$1.^a
 Wealth, debt, and taxation: pt. 1, Public debt. 902 p. \$1.20.
 Same: pt. 2, Valuation and taxation. 662 p. 80c.

TWELFTH CENSUS (1900) REPORTS.

- Abstract. 470 p. 30c.
 Agriculture: pt. 1, Farms, live stock, and animal products. 1003 p. \$2.
 Same: pt. 2, Crops and irrigation. 880 p. \$2.^a
 Annual report of Director of the Census, 1899, 5 p., 5c.;^a 1900, 21 p., 5c.;^a 1901, 14 p., 5c.^a
 Employees and wages, 1900. 289 p. \$2.^a
 Manufactures: pt. 1, United States by industries. 1039 p. \$2.^a
 Same: pt. 2, By States and Territories. 1111 p. \$2.^a
 Same: pt. 3, Selected industries, including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleomargarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1143 p. \$2.^a
 Same: pt. 4, Selected industries. Includes iron and steel; tin andterne plate; lead, copper, and zinc, smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p. \$2.^a
 Manufactures—Textiles (monograph). 258 p. 50c.
 Occupations at Twelfth Census. 1029 p. \$2.^a
 Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in United States. 1236 p. \$2.^a
 Same: pt. 2, Ages, in detail; school, militia, and voting ages; conjugal condition; school attendance; illiteracy; inability to speak English; occupations; dwellings and families; proprietorship of homes. 978 p. \$2.^a
 Population of United States by States and Territories, counties and minor civil divisions. [From Twelfth Census, 1900, vol. 1, Population, pt. 1.] 480 p. 50c.^a
 Revenue systems of State and local governments. 211 p. 25c.
 Statistical atlas, 1900. 298 p. 207 pl. 91 text fig. \$4.^a
 Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1162 p. \$2.
 Vital statistics: pt. 1, Analysis and ratio tables. 1009 p. \$2.^a
 Same: pt. 2, Statistics of deaths. 1061 p. \$2.^a
 Wealth, debt, and taxation—Abstract. 31 p. 10c.
 Women at work. 1900. 400 p. 85c.^a

THIRTEENTH CENSUS (1910) PUBLICATIONS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued

^a Available only from Superintendent of Documents at price stated.

in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

Population: vol. 1, General report and analysis. 1369 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Number of inhabitants; 104 p. 2. Color or race, nativity, and parentage; 122 p. 3. Sex distribution; 42 p. 4. Age distribution; 218 p. 5. Marital condition; 182 p. 6. State of birth; 92 p. 7. Country of birth; 94 p. 8. Foreign white stock; 84 p. 9. Mother tongue; 58 p. 10. Year of immigration; 16 p. 11. Voting and militia ages; 64 p. 12. School attendance; 88 p. 13. Illiteracy; 80 p. 14. Inability to speak English; 20 p. 15. Dwellings and families; 8 p. 16. Ownership of homes; 74 p.] \$1.60.

Same, vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1160 p. \$1.50.

Same, vol. 3, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1225 p. \$1.50.

Same, vol. 4, Occupation statistics. 615 p. [The following tables from this volume have been reprinted as separates: 3. Occupation statistics, cities of 100,000 and over; 57 p. 4. Occupation statistics, cities of 25,000 and over; 85 p. 5 and 9. Occupation statistics, Alaska, Hawaii, and Porto Rico; 19 p.] \$1.

Agriculture: vol. 5, General report and analysis. 927 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 88 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 146 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.] \$1.40.

Same, vol. 6, Reports by States, with statistics for counties—Alabama to Montana. 977 p. \$1.25.

Same, vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1013 p. \$1.35.

Manufactures: vol. 8, General report and analysis. 845 p. [The following portions of this volume have been reprinted as separates: Tables 5 and 6. Comparative summary, principal industries, by States, 1909, 1904, and 1899; establishments, persons engaged, power, capital, expenses, and value of products; Industries, by States, 1909; 245 p. Chap. 15 and Table 1. Description of individual industries with principal statistics for each; 145 p.] \$1.10.

Same, vol. 9, Reports by States, with statistics for principal cities. 1404 p. \$1.65.

Same, vol. 10, Reports for principal industries. 975 p. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motor cycles, and parts; 6 p. Blast furnace, steel works and rolling mill, wire, and tinplate and terneplate industries; 80 p. Boots and shoes, including cut stock and findings; 20 p. Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products: General chemical industry; bone, carbon, and lamp black; dyestuffs

and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p. Flour-mill and gristmill products; 24 p. Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 10 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 10 p. Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p. Paper and wood pulp; 16 p. Petroleum refining; 10 p. Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 10 p. Silk manufactures [also included in Textiles]; 25 p. Slaughtering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p. Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 13 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p.] \$1.25.

Mining: vol. 11, Mines and quarries. 369 p. 65c. [The following sections of this volume have been printed as separates: Coal, 55 p. Iron mines, 25 p.]

Abstract of the Census with State supplements.

The Abstract of the Census, a volume of 560 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries).

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:

Introduction.

Population: 1. Number and distribution of inhabitants. 2. Color or race, nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native popula-

tion. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries. \$1.

State supplements.

These supplements vary in size from 37 pages (District of Columbia) to 225 pages (New York).

Alabama, 20c.; Alaska, 10c.; Connecticut, 20c.; District of Columbia, 10c.; Georgia, 25c.; Hawaii, 10c.; Idaho, 15c.; Illinois, 30c.; Indiana, 25c.; Iowa, 25c.; Kansas, 25c.; Kentucky, 25c.; Louisiana, 20c.; Maine, 15c.; Maryland, 15c.; Massachusetts, 20c.; Michigan, 25c.; Minnesota, 25c.; Mississippi, 15c.; Missouri, 25c.; Montana, 20c.; Nebraska, 20c.; Nevada, 15c.; New Hampshire, 15c.; New Jersey, 20c.; New Mexico, 15c.; New York, 35c.; North Carolina, 20c.; North Dakota, 15c.; Ohio, 30c.; Oklahoma, 20c.; Oregon, 20c.; Pennsylvania, 30c.; Porto Rico, 15c.; Rhode Island, 15c.; South Carolina, 15c.; Tennessee, 20c.; Texas, 40c.; Utah, 15c.; Vermont, 15c.; Virginia, 25c.; Washington, 20c.; West Virginia, 15c.; Wisconsin, 20c.; and Wyoming, 15c.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States and, where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p. Color or race, nativity, parentage, sex, and males of voting and military ages [reprint of chap. 2 of Abstract]; 43 p. 5c. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. 5c. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. 5c. Country of origin of population of foreign birth and parentage, and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. 5c. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p. 5c.

Agriculture: Farms and farm property; 20 p. 5c. General farm crops; 28 p. Live stock on farms and elsewhere; 34 p. 5c. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. 5c. Crops; 59 p. 10c. Live-stock products, and domestic animals sold or slaughtered on farms; 10 p. 5c.

Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p. 5c.

Manufactures: Manufactures, by States, cities, and industries; 96 p.

Mines: Statistics of mining, for industries and States; 24 p.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

Population of counties and equivalent subdivisions. 30 p. 5c.

Total population and area of the United States, by States and Territories. 16 p. 5c.

Population of cities of 2,500 inhabitants and over. 46 p.

- Center of population and median lines, continental United States. 8 p. 5c.
 Irrigation: Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas. 28 p. 5c.^a
 Iron mines. 25 p. 5c.^a
 Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p. 65c.
 Cities and their suburbs. 6 p.
 Population of incorporated places. 111 p. 15c.
 Manufactures, 1909: Chap. XV, Description of individual industries with principal statistics for each. 145 p. 25c.^a
 Occupation statistics [summary of vol. 4 of final reports]. 107 p. 20c.
 Statistics of manufactures for metropolitan districts, 1909. 77 p. 15c.^a

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

- Population of New York City, by enumeration districts. 23 p. 5c.
 Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p. 5c.
 Chinese and Japanese in the United States. 50 p. 15c.
 Age of farmers, by color of operator, character of tenure, and size of farm. 85 p. 10c.
 Stability of farm operators, or term of occupancy of farms. 22 p. 5c.
 Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.] 5c.

INTERCENSAL REPORTS (1900-1918).

- Benevolent institutions: 1904, 335 p., 50c.; 1910, 411 p., 75c.
 Blind and deaf: 1900. 274 p. 60c.
 Central electric light and power stations: 1902, 185 p., cloth, 50c., paper, 25c.;^a 1907, 198 p., 50c.^a
 Central electric light and power stations and street and electric railways: 1912. 440 p. \$1.
 Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p. \$1.10.
 Electrical industries: 1902. 822 p. \$1.65.
 Express business in United States: 1907. 28 p. 10c.
 Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p. 70c.
 Indians in United States and Alaska: 1910. 285 p. 65c.
 Insane and feeble-minded in institutions: 1904, 238 p., cloth, 60c.; paper, 25c.; 1910, 217 p., 55c.
 Manufactures: 1905, pt. 1, United States by industries. 1080 p. \$1.35.
 Same: pt. II, States and Territories. 1244 p. \$1.50.^a
 Same: pt. III, Selected industries. 968 p. \$1.30.^a
 Same: pt. IV, Selected industries. 856 p. \$1.75.^a
 Marriage and divorce: 1867-1906, pt. 1, 535 p., \$1; pt. 2, General tables, 850 p. \$1.50.
 Mines and quarries: 1902. 1153 p. \$1.50.
 Mortality: 1900-1904, 1003 p., \$1.25; 1905, 360 p., \$1; 1906, 486 p., 80c.; 1907, 538 p., \$1.25; 1908, 706 p., \$1.10; 1909, 810 p., \$1.25; 1910, 611 p., 90c.; 1911, 572 p., \$1; 1912, 382 p., 75c.; 1913, 631 p., 90c.
 Paupers in almshouses: 1904, 216 p., cloth, 60c, paper, 25c.; 1910, 141 p., 50c.

^a Available only from Superintendent of Documents at price stated.

Prisoners and juvenile delinquents, 1904. 295 p. 40c.^a

Religious bodies: 1906, pt. 1, Summary and general tables, 576 p., \$1; pt. 2, Separate denominations: History, description, and statistics, 870 p., \$1.

Statistics of cities having population of over 30,000: 1905, 372 p., 50c.; 1906, 358 p., cloth, 85c., paper, 50c.; 1907, 548 p., cloth, 85c., paper, 65c.; 1908, 354 p., cloth, 75c.; 1909, 279 p., 55c.; 1910, 308 p., 60c.; 1911, 401 p., 75c.; 1912, 410 p., 75c.

Street and electric railways, 1902, 452 p., 75c.;^a 1907, 576 p., \$1.10.^a

General statistics of cities: 1909. 197 p. 45c.

Telephones and telegraphs: 1902. 184 p. Cloth, 75c.; paper, 50c.

Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p. 55c.

Telephones and telegraphs and municipal electric fire-alarm and police-patrol signaling systems: 1912. 208 p. 50c.

Transportation by water: 1906. 240 p. 90c.

Special report: Wealth, debt, and taxation, 1900-1904. 1246 p. \$2.^a

Wealth, debt, and taxation: 1913, vol. 1, 886 p., \$1.25; vol. 2, 756 p., \$1.

INTERCENSAL BULLETINS (1900-1914).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census, or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects.

Miscellaneous.

Age statistics, discussion: 1880, 1890, 1900-13. 53 p. 10c.

The blind population of the United States: 1910-130. 52 p. 15c.

Central electric light and power stations and street and electric railways: 1912-124. 113 p. 25c.

Child labor in District of Columbia: Twelfth Census, 1900-68. 21 p. 10c.^a

Child labor in United States: Twelfth Census, 1900-69. 200 p. 25c.^a

Chinese and Japanese in United States: 1910-127. 50 p. 15c.

Commercial valuation of railway operating property in United States: 1904-21. 88 p. 10c.

Cotton ginned in United States: Crops of 1899 to 1902, inclusive-2, 46 p., 5c.; 1899 to 1903-10, 10c.;^a 1900 to 1904-19, 10c.^a

Cotton production: 1905^b-40, 72 p., 10c.; 1906-76, 68 p., 10c.; 1907-95, 58 p., 15c.; 1908-100, 63 p., 15c.; 1909-107, 64 p., 10c.; 1910^b-111, 66 p., 15c.; 1911-114, 61 p., 10c.; 1912-116, 63 p., 10c.; 1913-125, 79 p., 15c.

Cotton production and distribution: 1914-15-131. 102 p. 10c.

Cotton supply and distribution for year ended Aug. 31, 1905-25, 15 p., 5c.; 1906-63, 25 p., 10c.; 1907-90, 26 p., 10c.; 1908-97, 40 p., 15c.; 1909-100, 32 p., 10c.; 1910-110, 32 p., 5c.; 1911-113, 31 p., 10c.; 1912-115, 31 p., 10c.; 1913-117, 40 p., 10c.; 1914-128, 30 p., 10c.

Deaf and dumb population of United States: 1910. 8 p. 5c.

Discussion of increase of population: 1903-4. 63 p. 10c.^a

^a Available only from Superintendent of Documents at price stated.

^b The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

- Earnings of wage earners (a study based on census of manufactures, 1905)—98. 179 p. 25c.
- Electrical industries of Porto Rico: 1907—09. 29 p. 10c.
- Estimates of population: 1904, 1905, 1906—71, 28 p., 10c; 1910—1914—122, 24 p. 5c.*
- Estimates of population of larger cities of United States in 1901—1903—7. 21 p. 10c.
- Executive civil service of United States, statistics of employees: 1904—12, 239 p., 25c.; 1907—04, 164 p., 20c.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p. 5c.
- Illiteracy in United States (study based on reports of Twelfth and preceding censuses)—26. 54 p. 10c.
- Increase of population: 1890 to 1900, discussion of—4. 63 p. 10c.
- Industrial districts: 1905. Manufactures and population—101. 81 p. 15c.
- Insane and feeble-minded in institutions: 1910—119. 99 p. 20c.
- Insular and municipal finances in Porto Rico for fiscal year 1902—3—24. 81 p. 5c.
- Irrigation in United States: 1902—10. 92 p. 10c.*
- Marriage and divorce: 1887—1906—90. 71 p. 15c.
- Mineral industries of Porto Rico: 1902—3. 18 p. 15c.
- Mines and quarries: 1902—0. 59 p. 10c.
- Mortality statistics: 1908—104, 133 p., 20c.; 1909—108, 138 p., 20c.; 1910—109, 191 p., 30c.; 1911—112, 142 p., 25c.
- Municipal electric fire-alarm and police-patrol systems: 1902—11. 83 p. 10c.
- Negroes in the United States: 1910—129. 207 p. 35c.
- Paupers in almshouses: 1910—120. 99 p. 20c.
- Population of Oklahoma and Indian Territory: 1907—80. 48 p. 15c.
- Prisoners and juvenile delinquents: 1910—121. 130 p. 15c.
- Proportion of children in United States (study based on reports of Twelfth and preceding censuses)—22. 27 p. 5c.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding censuses)—14. 51 p. 10c.
- Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p. 20c.
- Statistics of cities having population of 8,000 to 25,000: 1903—45. 231 p. 25c.
- Statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p. 40c.
- Statistics of cities having population of over 30,000: 1904—50, 209 p., 25c.; 1907 (abstract of annual report)—105, 94 p., 15c.; 1912—118, 83 p., 15c.; 1913—128, 73 p., 15c.
- Street and electric railways, 1912—3. 193 p. 5c.*
- Supervisors' districts for Thirteenth Census: 1910—98. 19 p. 15c.
- Teachers, statistics (study based on reports of Twelfth and preceding censuses)—23. 20 p. 5c.
- Telegraph systems: 1907—102. 47 p. 25c.
- Telephones and telegraphs: 1902—17, 49 p., 10c.; 1912—123, 26 p., 10c.
- Transportation by water: 1906. United States—91. 57 p. 10c.
- Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p. 10c.

Wealth, debt, and taxation.

The statistics presented in these bulletins are reproduced in Volumes I and II of the report on Wealth, Debt, and Taxation: 1913.

Abstract of special bulletins: 1913. 63 p. 10c.

Assessed valuation of property and amounts and rates of levy: 1800—1912. 176 p. 35c.

* Available only from Superintendent of Documents at price stated.

- County and municipal indebtedness: 1913, 1902, and 1890; and sinking-fund assets, 1913. 223 p. 25c.
- County revenues, expenditures, and public properties: 1913. 338 p. 50c.
- Estimated valuation of national wealth: 1850-1912. 20 p. 10c.
- Municipal revenues, expenditures, and public properties: 1913. 378 p. 70c.*
- National and State indebtedness and funds and investments: 1870-1913. 203 p. 40c.
- National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1913. 44 p. 10c.
- Taxation and revenue systems of State and local governments: 1913. 275 p. 50c.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

- Agricultural implements—75. 31 p. 10c.
- Automobiles and bicycles and tricycles—60. 37 p. 10c.
- Boots and shoes, leather, and leather gloves and mittens—72. 81 p. 15c.
- Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p. 15c.
- Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p. 10c.
- Carriages and wagons, and steam and street railroad car industry—84. 75 p. 15c.
- Chemicals and allied products—92. 124 p. 20c.
- Copper, lead, and zinc, smelting and refining—80. 82 p. 10c.
- Coke—65. 57 p. 15c.*
- Electrical machinery, apparatus, and supplies—73. 73 p. 20c.
- Glass and clay products—62. 107 p. 15c.
- Iron and steel and tin andterne plate—78. 105 p. 15c.
- Lumber and timber products—77. 69 p. 20c.
- Metal-working machinery—47. 18 p. 10c.
- Musical instruments, attachments, and materials—82. 34 p. 10c.
- Paper and wood pulp—80. 43 p. 10c.*
- Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p. 10c.
- Petroleum refining—70. 57 p. 15c.
- Power employed in manufactures—88. 27 p. 10c.
- Printing and publishing—79. 133 p. 20c.
- Shipbuilding—81. 29 p. 10c.
- Slaughtering and meat packing, manufactured ice and salt—83. 83 p. 15c.*
- Textiles—74. 212 p. 30c.*
- Tobacco—87. 33 p. 10c.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

- United States—57. 93 p. 15c.
- Alabama—43. 23 p. 10c.
- Arizona, Indian Territory, New Mexico, and Oklahoma—30. 85 p. 10c.
- California, Oregon, and Washington—49. 73 p. 10c.

* Available only from Superintendent of Documents at price stated.

Colorado, Idaho, Nevada, and Utah—37. 49 p. 10c.
 Connecticut—42. 39 p. 10c.
 Delaware—31. 15 p. 10c.
 Florida—33. 17 p. 10c.
 Georgia—55. 23 p. 10c.
 Illinois—52. 53 p. 10c.
 Indiana—38. 37 p. 10c.
 Iowa—32. 27 p. 10c.
 Kansas—28. 25 p. 10c.
 Kentucky and Tennessee—47. 45 p. 10c.
 Louisiana, Mississippi, and Texas—48. 57 p. 10c.
 Maine—51. 25 p. 10c.
 Maryland and District of Columbia—27. 33 p. 10c.
 Massachusetts—53. 79 p. 10c.
 Michigan—18. 35 p. 10c.
 Minnesota—46. 27 p. 10c.
 Missouri and Arkansas—35. 47 p. 10c.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p. 10c.
 Nebraska—29. 19 p. 10c.
 New Hampshire and Vermont—41. 35 p. 10c.
 New Jersey—54. 53 p. 10c.
 New York—59. 101 p. 15c.
 North Carolina and South Carolina—39. 37 p. 10c.
 Ohio—58. 61 p. 10c.
 Pennsylvania—60. 81 p. 15c.
 Rhode Island—36. 29 p. 5c.
 Virginia and West Virginia—44. 43 p. 10c.
 Wisconsin—56. 39 p. 10c.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

- No. 1. Pulp-wood consumption: 1908, 12 p., 5c.; 1909, 15 p., 5c.; 1910, 10 p., 5c.; 1911, 10 p., 5c.
- No. 2. Lumber, lath, and shingles: 1908, 57 p., 10c.; 1909, 63 p., 5c.; 1910, 45 p., 5c.; 1911, 45 p., 5c.;^a 1912, 61 p., 5c.
- No. 3. Slack cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1910, 8 p., 5c.; 1911, 8 p., 5c.
- No. 4.^b Tanbark and tanning extracts: 1907, 10 p., 5c.; 1908, 10 p., 5c.; 1909, 14 p., 5c.
- No. 4. Excelsior: 1911. 4 p. 5c.
- No. 5. Veneers: 1907, 9 p., 5c.; 1908, 13 p., 5c.; 1909, 23 p., 5c.; 1910, 6 p., 5c.; 1911, 8 p., 5c.
- No. 6. Tight cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1910, 12 p., 5c.; 1911, 12 p., 5c.
- No. 7. Wood distillation: 1907, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 5 p., 5c.; 1911, 6 p.
- No. 8. Crossties purchased: 1907, 6 p., 5c.; 1908, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 8 p., 5c.; 1911, 8 p., 5c.

^a Available only from Superintendent of Documents at price stated.

^b This pamphlet was not issued for 1910 and 1911.

No. 9. Poles purchased: 1907, 8 p., 5c.; 1908, 8 p., 5c.; 1909, 14 p., 5c.; 1910, 7 p., 5c.; 1911, 7 p., 5c.

No. 10.* Forest products of United States: 1907, 122 p., 5c.; 1908, 137 p., 15c.; 1909, 178 p., 15c.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (180 p.); Massachusetts (303 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (420 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish. The Spanish edition is now exhausted. The titles of the English reports are as follows:

Vol. I, Geography, history, population. 620 p. \$1.^b

Vol. II, Population. 1048 p. 75c.^b

Vol. III, Mortality, defective classes, education, families and dwellings. 740 p. 75c.^b

Vol. IV, Agriculture, social, and industrial statistics. 638 p. \$1.^b

In addition to the English reports, three bulletins of the following titles, compiled from these reports, in English only, are available:

No. 1. Population of Philippines. 100 p. 10c.

No. 2. Climate of Philippines. 103 p. 10c.

No. 3. Volcanoes and seismic centers of Philippine Archipelago. 80 p. 10c.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand in the United States for information regarding Cuba the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The

* No. 10 is a consolidation, without change, of Nos. 1 to 9.

^b Available only from Superintendent of Documents at price stated.

Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

Cuba: Population, history, and resources: 1907 (compendium). 275 p. Cloth, 50c.^a; paper, 35c.^a

Vital statistics.

Extension of registration area for births and deaths, practical example of cooperative census methods as applied to State of Pennsylvania, 1908. 51 p. 10c.^a

Index of joint causes of death: 1914. 308 p. 70c.

International classification of causes of sickness and death: 1910. 146 p. 20c.

Legal importance of registration of births and deaths: 1908. 32 p. 5c.^a

Manual and international classification of causes of death: 1902. 177 p. 20c.^a

Manual of international list of causes of death: 1911, 297 p.; 1913, 307 p. 65c.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p. 10c.

Physicians' pocket reference to international list of causes of death: 1910, 20 p., 5c.; 1913, 28 p., 5c.

Practical registration methods: 1903. 29 p. 5c.

Tuberculosis in United States: 1908. 67 p. 15c.

MISCELLANEOUS.

Annual report of Director, 1915,^b 29 p.

American census taking. 34 p.

Census Office and coordination of statistics. 43 p. 10c.

Census publications: 1914 (complete descriptive and chronological lists of publications). 91 p.

Circular of information, "Ravages of the boll weevil," 1914. 12 p. 5c.^a

Collaboration in Federal and State statistical work. 73 p. 5c.

Cooperation and unification in Federal and State statistical work. 48 p.

Cotton-ginning reports. [Issued in card form (4 by 6 inches) at intervals during cotton-ginning season.]

Report on cotton ginning by counties: Nov. 21, 1905, 14 p., 5c.;^a Dec. 28, 1905, 12 p., 5c.;^a Dec. 31, 1908, 15 p., 5c.;^a Dec. 31, 1909, 14 p., 5c.;^a Dec. 31, 1910, 14 p., 5c.;^a Dec. 31, 1911, 14 p., 5c.;^a Dec. 31, 1912, 14 p., 5c.^a

History and growth of United States census: 1790-1890. 967 p. 70c.

Index to occupations, alphabetical and classified. 414 p. 75c.

Leaf tobacco—Report on quantity held by manufacturers and dealers Apr. 1, 1915. 22 p. 5c.

Official register, 1915. 910 p. \$1.50.^a

Rank of several States in population, value of crops, etc., census of 1900 and 1910. 2 p. 5c.^a

List of census publications: 1914. 91 p.

Special census of population of Hamtramck, Mich., June 25, 1915. 16 p. 5c.

Special census of population of St. Clair Heights, Mich., Nov. 18, 1915. 4 p.

Special census of population of Tu'sa, Okla., Apr. 15, 1915. 16 p. 1 map. 10c.

Standard form for reporting financial statistics of public schools: 1911. 28 p.

Statistical atlas of United States: 1914. 602 p. 503 pl., 99 text fig. \$2.50.

Summary of State laws relating to care of dependent classes: 1913. 346 p. 40c.

Table of illiteracy in foreign countries. 4 p. 5c.^a

Tentative program of Bureau of the Census: 1914-1916. 8 p. 5c.

The story of the census: 1790-1915. 86 p. 10c.

^a Available only from Superintendent of Documents at price stated.

^b The Superintendent of Documents can supply copies of annual reports for each year since 1903, with the exception of 1911 and 1914, at 5 cents each.

Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p. 5c.

Uniform accounts for systems of water supply: 1911. 44 p. 5c.

Uniform municipal accounting: 1906. 121 p. 25c.

Work of Permanent Census Bureau: 1902-1913. 81 p. 5c.

COAST AND GEODETIC SURVEY.

In addition to the annual report of the Superintendent, detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of geodesy, topography, hydrography, terrestrial magnetism, the tides, and related subjects; charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications are furnished without charge by the Division of Publications, Department of Commerce, and many of them, and also many of those of which the stock for general distribution is exhausted, may be purchased from the Superintendent of Documents, Government Printing Office, at the prices stated in this list.

For convenient identification future publications and revised editions of former publications of the Survey will have a serial number on the upper left-hand corner of cover and title-page, which should be referred to when copies of a publication bearing a serial number are requested.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in coast line or in depths in channels and harbors, and information relating to terrestrial magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey of the year 1908, inclusive, may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at all depositories of public documents and at many public libraries. For later publications the List of Publications issued by the Department should be consulted.

Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots, Inside Route Pilots, and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes 645 charts on different scales, for general or local use, covering the coast of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and coast-pilot notes relating to Alaska, the Philippine Islands, and Hawaii.

Inside Route Pilots have been published covering the navigable waters from New York to Key West, Key West to New Orleans, and the coast of New Jersey. Similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1914, to June 30, 1915. 156 p. 29 litho. [There is also on hand a limited supply of annual reports, 1851 to 1914, except 1862, 1870, 1871, 1875, 1893 (pt. 1), 1894 (pt. 1), 1896, and 1897.*]

GEODESY.

Longitude between America and Europe from signals through Atlantic cable; by B. A. Gould. Report for 1867, app. 6, p. 57-133.

Observations of eclipse of sun on Aug. 7, 1860, made by parties of Survey at following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Denn; Springfield, Ill., in charge of C. A. Schott, under immediate direction of Superintendent of Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kobuklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1860, app. 8, p. 116-198, illustrated by woodcuts, 3 pl. 16 fig. 1 map, 2 diag.

Description of two forms of portable apparatus for determination of personal equation, both relative and absolute, in observations of star transits; by J. E. Hilgard. Report for 1874, app. 17, p. 156-162, 1 fig. 1 diag. 5c.^b

Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal.: by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig. [Reprinted from Report for 1871, app. 16.^c]

Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^c

Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Bontelle and F. P. Webber. In 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^c

Adaptation of triangulations to various conditions, depending on configuration or orographic character of country and on degree of accuracy aimed at, with due consideration of time and means available; also notes on method of observing horizontal angles and directions in geodetic surveys; by Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 fig. [Reprinted, with additions, from the Report for 1871, app. 15.]

Pamlico-Chesapeake arc of meridian and its combination with Nantucket and Peruvian arcs, for determination of figure of earth from American measures; by Charles A. Schott. Report for 1877, app. 6, p. 84-95. 5c.

* The Superintendent of Documents can supply copies of annual reports for 1848 to 1914, except 1896, at the following prices: 1848, 50c.; 1849, 25c.; 1850, 50c.; 1851, pt. 1, 45c.; 1851, pt. 2, 40c.; 1852, 85c.; 1853, 85c.; 1854, \$1.10; 1855, \$1.15; 1856, \$1.15; 1857, \$1.25; 1858, \$1.10; 1859, \$1.10; 1860, \$1.10; 1861, 90c.; 1862, \$1.15; 1863, \$1; 1864, \$1; 1865, \$1; 1866, 90c.; 1867, 90c.; 1868, 90c.; 1869, 90c.; 1870, 90c.; 1871, 90c.; 1872, 90c.; 1873, 90c.; 1874, \$1; 1875, \$1.20; 1876, \$1.25; 1877, \$1.20; 1878, \$1.20; 1879, \$1.20; 1880, \$1.20; 1881, \$1.20; 1882, \$1.25; 1883, \$1.20; 1884, \$1.20; 1885, \$1.20; 1886, \$1; 1887, \$1.10; 1888, \$1.20; 1889, \$1.75; 1890, \$1.30; 1891, pt. 1, \$1; 1891, pt. 2, 90c.; 1892, pt. 1, 80c.; 1892, pt. 2, 70c.; 1893, pt. 1, \$1.60; 1893, pt. 2, 80c.; 1894, pt. 1, \$1; 1894, pt. 2, \$1.15; 1895, \$1.60; 1896, \$1.60; 1897, \$1.70; 1898, \$1.60; 1899, \$1.60; 1900, \$1.90; 1901, \$1.20; 1902, \$1.10; 1903, \$1.35; 1904, \$1.40; 1905, \$1; 1906, \$1.25; 1907, \$1.75; 1908, \$1; 1909, \$1; 1910, \$1.10; 1911, \$1.35; 1912, 25c.; 1912, maps, 35c.; 1913, 75c.; 1914, 40c.

^b Available only from Superintendent of Documents at price stated.

^c Appendixes 16-10 of Report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Allied subjects."

- Observations of transit of Mercury, May 6, 1878, made at Summit station, Central Pacific R. R.; by B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl. 1 sketch.
- Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.
- Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.
- Observations to determine refraction on lines passing near a surface of water, made at different elevations across Potomac River; by Andrew Braid. Report for 1879, app. 16, p. 212-213.
- Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag.
- Explanation of apparatus for observation of telegraphic longitudes, with directions for its use; by Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diag.
- Geodesic night signals; by Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig. 1 pl. 1 diag.
- Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag.
- Perfected form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag.
- Meteorological researches: pt. 3, Barometric hypsometry and reduction of barometer to sea level; by William Ferrel. Report for 1881, app. 10, p. 225-268, 1 illus.
- Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358.
- Flexure of pendulum supports; by C. S. Peirce. Report for 1881, app. 14, p. 359-441.^a
- Deduction of ellipticity of earth from pendulum experiments; by C. S. Peirce. Report for 1881, app. 15, p. 442-456, 1 fig.^a
- Method of observing coincidence of vibration of two pendulums; by C. S. Peirce. Report for 1881, app. 16, p. 457-460, 3 fig.^a
- Value of gravity at Paris; by C. S. Peirce. Report for 1881, app. 17, p. 461-463.
- Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag.
- Measurement of Yolo base, Yolo County, Cal.; by George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig. 1 sketch, 2 diag.
- Total solar eclipse of Jan. 11, 1880, observed at Mount Santa Lucia, Cal.; by George Davidson. Report for 1882, app. 20, p. 463-468, 2 diag.
- New reduction of La Caille's observations, made at Cape of Good Hope and at Paris, 1749-1757, and given in his "Astronomiæ Fundamenta," together with a comparison of results with Bradley-Bessel "Fundamenta"; also catalogue of places of 150 stars south of declination -30° , for epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.
- Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 503-516.
- Results for length of primary base line in Yolo County, Cal., 1881, by party of George Davidson; computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag. 5c.
- Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.
- Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Elmbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.

^a Appendices 14-17 to Report for 1881 are bound together.

- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880;** by Charles S. Peirce. Report for 1883, app. 19, p. 473-487.
- Run of micrometer;** by George Davidson. Report for 1884, app. 8, p. 377-385.
- Connection at Lake Ontario of primary triangulation of Coast and Geodetic Survey with that of Lake Survey;** observations by Charles O. Boutelle; discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map.
- Results of trigonometrical determination of heights of stations forming Davidson quadrilaterals, Cal.;** observations by George Davidson, 1876-1882; discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 fig. 5c.
- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment;** by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.
- Determinations of gravity with Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal.; and Washington, D. C.** By Edwin Smith. Report for 1884, app. 14, p. 439-473.
- Use of noddy for measuring amplitude of swaying in pendulum support;** by C. S. Peirce. Report for 1884, app. 15, p. 475-482.
- Note on effect of flexure of pendulum upon its period of oscillation;** by C. S. Peirce. Report for 1884, app. 16, p. 483-485.
- Geographical positions of trigonometrical points in Massachusetts and Rhode Island, determined by Survey, 1835-1885, and including those determined by Borden survey, 1832-1838;** by Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps. 10c.
- Results deduced from geodetic connection of Yolo base line with primary triangulation of California, also reduction and adjustment of Davidson quadrilaterals forming part of that triangulation;** by Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.
- Note on device for abbreviating time reductions;** by C. S. Peirce. Report for 1885, app. 13, p. 503-508.
- Influence of noddy on period of pendulum;** by C. S. Peirce. Report for 1885, app. 16, p. 509-510.^a
- Effect of unequal temperature upon reversible pendulum;** by C. S. Peirce. Report for 1885, app. 17, p. 511-512.^a
- Fluctuations in level of Lake Champlain and average height of its surface above sea—Preliminary report** by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. 5c.
- Heights from spirit levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La.,** by J. B. Weir, 1885-86; by Charles A. Schott. Report for 1887, app. 9, p. 185-205.
- Geographical positions of trigonometrical points in Connecticut, determined by Survey, 1833-1886—Introduction and explanation of tabular results;** by Charles A. Schott. Report for 1888, app. 8, p. 313-403, 1 map.
- Heights from spirit leveling of precision between Mobile, Ala., and Okolona, Miss.;** observations by J. B. Weir and J. E. McGrath, 1884, 1886, and 1887; report by Charles A. Schott. Report for 1888, app. 10, p. 409-426.
- Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark.;** report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453.
- Heights from spirit leveling of precision between Arkansas City (on Mississippi River) and Little Rock, Ark.;** observations by J. E. McGrath, 1887-88; report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.
- Differential method of computing apparent places of stars for determinations of latitude;** by E. D. Preston. Report for 1888, app. 13, p. 465-470. 5c.
- Determinations of latitude and gravity for Hawaiian government;** by E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pl. 5 maps, 5 diag.
- Same, abstract.** Bull. 11, p. 137-142, 1 fig. 3 maps. 1889.
- Measurement of Los Angeles base line, Los Angeles and Orange Counties, Cal.;** by George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag.

^a Appendixes 16 and 17 to Report for 1885 are bound together; price, 5 cents.

- Results of spirit leveling between tidewater at Annapolis, Md., and Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins; report by C. A. Schott.** Report for 1889, app. 15, p. 461-466.
- Resulting length and probable uncertainty of five principal base lines, measured with compensation base apparatus, Bache-Würdemann, of Survey, 1847-1855; by Charles A. Schott.** Report for 1889, app. 17, p. 479-491. 5c.
- Report of George Davidson, appointed by President as delegate to 9th conference of International Geodetic Association held at Paris, October, 1889.** Report for 1889, app. 18, p. 493-503, 1 fig.
- Telegraphic determination of longitude of Mount Hamilton, Cal.—Field work by C. H. Sinclair and R. A. Marr; by Charles A. Schott.** Bull. 13, p. 147-150. 1889. 5c.
- Description of two new transit instruments for longitude work, constructed at office of Survey from designs by Edwin Smith.** Bull. 16, p. 161-164, 1 fig. 1 diag. 1889. 10c.
- Determinations of gravity and magnetic elements in connection with United States scientific expedition to West Coast of Africa, 1889-90; by E. D. Preston.** Report for 1890, app. 12, p. 625-684, 10 pl. 16 fig. 1 map. [Includes observations on some islands in the North and South Atlantic Ocean.] 15c.
- Same, abstract.** Bull. 22, p. 219-223, 7 pl. 1 map. 1891.
- International Geodetic Association, 9th conference, Paris, Oct. 3-12, 1889—Address of George Davidson, delegate to association on part of United States.** Report for 1890, app. 17, p. 721-733.
- Geographical explorations.** Report for 1890, app. 19.
- Determination of azimuth from micrometric observations of close circumpolar star near elongation by means of meridian transit, or of a theodolite with eyepiece micrometer.** Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report on method and example of computation by Charles A. Schott; observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull. 21.]
- Transit of Mercury of May 9, 1891, as observed at Waikeiki, Hawaii; by E. D. Preston.** Report for 1891, pt. 2, app. 12, p. 475-477.
- Report of expedition to Muir Glacier, Alaska, with determinations of latitude and magnetic elements at Camp Muir, Glacier Bay; by Harry Fielding Reid.** Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- Variation of latitude at Rockville, Md., as determined from observations, 1891 and 1892, in cooperation with International Geodetic Association; by C. A. Schott.** Report for 1892, pt. 2, app. 1, p. 1-51, 2 fig. 2 pl. 2 diag.
- Same, abstract.** Bull. 25, p. 237-261, 2 diag. 1892.
- Variation of latitude at Waikeiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association; by E. D. Preston.** Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl. 1 fig. 2 maps, 9 diag.
- Results of spirit leveling of precision between Okolona, Miss., and Odin, Ill., from observations made by J. B. Weir, Isaac Winston, P. A. Welker, and F. A. Young; by Charles A. Schott.** Report for 1892, pt. 2, app. 3, p. 161-203, 1 fig. 1 map.
- Results of spirit leveling of precision between Corinth, Miss., and Memphis, Tenn., from observations, 1890-91, by Isaac Winston and F. A. Young; by Charles A. Schott.** Report for 1892, pt. 2, app. 4, p. 205-224.
- Measurement of Holton base, Holton, Ripley County, Ind., and the St. Albans base, Kanawha County, W. Va.** Report for 1892, pt. 2, app. 8, p. 329-503, 2 pl. 2 fig. 2 diag. 25c.
- Measure of irregularity in one turn of micrometer screw, and relative value of each turn; by George Davidson.** Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag. 5c.
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- Photography as applied to obtain instantaneous record of lunar distances for determinations of longitude; by C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124. 5c.
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- Variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson, May, 1891-Aug., 1892; discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-503, 2 diag.
- Determinations of latitude, gravity, and magnetic elements at stations in Hawaiian Islands, including result for mean density of earth, 1891-92; by E. D. Preston. Report for 1893, pt. 2, app. 12, p. 500-639, 8 pl. 12 fig. 2 maps, 6 diag.
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- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 3, p. 333-344.
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- Constant of aberration as determined from observations of latitude at San Francisco, Cal.; discussion by E. D. Preston; observations by George Davidson. Bull. 32, p. 109-120. 1895. 5c.
- Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir, Sept.-Nov., 1884, and by I. Winston, Dec., 1891-Feb., 1892; by C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map.
- Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations by J. B. Weir, Sept. and Oct., 1883, and Sept. and Oct., 1884, with releveling by J. B. Weir between Richmond and Fredericksburg, Va., May and June, 1886, and verification leveling between the two cities by I. Winston, Apr.-June, 1895; by Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map.
- Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations by J. B. Weir, July-Sept., 1883; report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map.

- Resulting heights from spirit leveling between Jefferson City, Mo., and Holli-day, Kans., from observations by I. Winston and F. A. Young, Apr. 21-Oct. 13, 1891; report by Charles A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig. 1 map.**
- Field method of reducing portable transit time observations; by G. R. Putnam. Report for 1896, app. 9, p. 347-352.**
- Telegraphic longitude net of United States and its connection with that of Europe, 1866-1896; by Charles A. Schott. Report for 1897, app. 2, p. 197-201, 1 map.**
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- Resulting heights from spirit leveling between Ellis, Kans., and Hugo, Colo., from observations by I. Winston, June 11-Nov. 17, 1897; report by Charles A. Schott. Report for 1898, app. 2, p. 195-214, 2 fig.**
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- Physical observations made in connection with the Pribilof Islands survey of 1897; by G. R. Putnam. Report for 1898, app. 5, p. 233-241, 1 fig. 1 map.**
- Report on proceedings of International Geodetic Association Conference at Stuttgart, Germany, Oct. 3-12, 1898, and on geodetic operations in United States; by E. D. Preston, delegate on part of United States. Report for 1898, app. 6, p. 243-260, 1 pl. 3 maps.**
- International Geodetic Association for measurement of the earth; by Erasmus D. Preston, delegate on part of United States at 12th general conference. Report for 1899, app. 3, p. 241-260, 1 map.**
- Determinations of gravity at Polytechnic Institute, Worcester, Mass., and Columbia University, New York City, with pendulum apparatus B; by Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 fig.**
- Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston, May 12-Oct. 21, 1899; by Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig.**
- Resulting elevations from spirit leveling between Abilene, Kans. and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton, May 8-Oct. 17, 1899; by B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig.**
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- Measurement of flexure of pendulum supports with interferometer; by W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text fig. 5c.
- Formulae and tables for computation of geodetic positions. 5th ed., with preface by C. R. Duvall. Special publication 8. 91 p. 1911. 15c.

^a Available only from Superintendent of Documents at price stated.

- Effect of topography and isostatic compensation upon intensity of gravity; by John F. Hayford and William Bowie.** Special publication 10. 132 p. 11 text fig. 9 charts. 1912. 35c.
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HYDROGRAPHY.

- Abstract of paper read before National Academy of Sciences, Apr. 16, 1869, on earthquake wave of Aug. 14, 1868; by J. E. Hilgard.** Report for 1869, app. 13, p. 233-234.
- Tidal researches; by William Ferrel.** 282 p. 13 fig. 1874.
- Location of quay or pier line in vicinity of United States navy yard at New York; by Henry Mitchell.** Report for 1876, app. 11, p. 186-189, 1 sketch.
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- Observations of density of waters of Chesapeake Bay and its principal estuaries; report by Frederick Collins.** Report for 1877, app. 14, p. 184-190, 2 fig.
- Physical hydrography of Gulf of Maine; by Henry Mitchell.** Report for 1879, app. 10, p. 175-190, 1 fig. 2 diag.
- Addendum to report on physical survey of Delaware River; by Henry Mitchell.** Report for 1879, app. 13, p. 199-200, 1 diag.

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- Comparison of surveys of Mississippi River in vicinity of Cubitts Gap; by H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag.
- Oyster beds of James River, Va., and of Tangier and Pocomoke Sounds, Md. and Va.; by Francis Winslow. Report for 1881, app. 11, p. 269-353, 7 pl. 3 maps, 15 diag.
- New rule for currents in Delaware Bay and River; by Henry Mitchell. Report for 1881, app. 18, p. 464-469, 1 fig.
- Comparison of survey of Delaware River of 1819, between Pettys and Tinicum Islands, with more recent surveys; by Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diag.
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- Changes in shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by comparison of surveys made between 1835, 1867, and 1890; by Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps. 5c.
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- Long-wire sweep; by D. B. Wainwright. Report for 1905, app. 6, p. 283-287, 2 diag.

- Manual of tides: pt. 5, Currents, shallow-water tides, meteorological tides, and miscellaneous matters; by R. A. Harris. Report for 1907, app. 6, p. 231-546, 22 diag. 7 charts. 60c.
- Long-wire drag; by N. H. Heck. rev. ed. Special publication 21. 31 p. 7 pl. 12 text fig. 1914. 20c.
- Survey of oyster bars, Anne Arundel County, Md.—Description of boundaries and landmarks, and report of work of Survey in cooperation with Maryland Shell Fish Commission; by C. C. Yates. 106 p. 1 map. 1907. 25c.
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Inland pilots.

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Chart catalogues.

- Catalogue of charts, coast pilots, and tide tables, 1914. 230 p. 87 text fig. 35c.
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Sailing directions for the Philippine Islands.

- Philippine Islands—Sailing directions: sec. 3, Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.
 Same, sec. 4, Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 p.

Notice to mariners.

- Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

- Type forms of topography, Columbia River; by E. Hergeshelmer. Report for 1881, app. 7, p. 124-125, 7 fig. 1 map.
 Proceedings of Topographical Conference, Washington, D. C., Jan. 18-Mar. 7, 1892. Report for 1891, pt. 2, app. 16, p. 565-746, 2 pl. 25 fig. 1 map, 6 diag. 25c.
 Phototopography as practiced in Italy under auspices of Royal Military Geographical Institute, and as practiced in Dominion of Canada under auspices of Department of Interior; also short historical review of other photographic surveys and publications on subject. By J. A. Flemer, assistant. Report for 1893, app. 3, p. 37-116. 10c.^b
 Subdivision 1. List of original topographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834-Dec. 31, 1895; nos. 1-2200. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834-Dec. 31, 1895; nos. 1-2222. Report for 1895, app. 11, p. 399-516. 40c.
 Plane table manual; by D. B. Wainwright. Report for 1905, app. 7 (reprint with corrections, Jan., 1915), p. 289-342, 7 litho. 9 pl. 20 p. of pl. 1 text fig. 50c.

TERRESTRIAL MAGNETISM.

- New discussion of distribution of magnetic declination on coast of Gulf of Mexico, with chart of isogonic curves for 1860; by Charles A. Schott. Report for 1861, app. 23, p. 251-256, 1 map.^c
 Development of Bessel's function for effect of periodic forces, for durations of periods frequently occurring in meteorological and magnetical investigations; with examples. Communicated by Charles A. Schott. Report for 1862, app. 22, p. 232-235.

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^b Available only from Superintendent of Documents at prices stated.
^c Bound with app. 6, 17, 18, 19, 20, 21, and 25 of Report for 1861.

- Report on results from observations made at magnetical observatory, Capitol Hill, Washington, D. C., 1867-1869; by Charles A. Schott. Report for 1869, app. 9, p. 199-207.**
- On chart of magnetic declination in United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400-401, 1 map.**
- On secular change of magnetic declination in United States and at some foreign stations; by Charles A. Schott. Report for 1879, app. 9, p. 124-174, 2 maps, 1 diag.**
- Inquiry into variation of compass off Bahama Islands, at time of landfall of Columbus in 1492; by Charles A. Schott. Report for 1880, app. 19, p. 412-417, 1 map.**
- Collection of results for declination, dip, and intensity, from observations made by Survey, 1833-1882, July; by Charles A. Schott. Report for 1881, app. 9, p. 159-224.**
- Secular variation of magnetic declination in United States and at some foreign stations; by Charles A. Schott, assistant. Report for 1882, app. 12, p. 211-276.**
- Records and results of magnetic observations made at charge of "Bache fund" of National Academy of Sciences, 1871-1876; under direction of J. E. Hilgard, M. N. A. S., by H. W. Blair. Report for 1882, app. 14, p. 329-426.**
- Account and results of magnetic observations made under direction of Survey in cooperation with United States Signal Office, at United States polar station Ooglaumie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323-365, 10 fig. 1 map.**
- Geographical distribution and secular variation of magnetic dip and intensity in United States; by Charles A. Schott. Report for 1885, app. 6, p. 129-274, 3 maps, 3 diag.**
- Collection of some magnetic variations off coasts of California and Mexico, observed by Spanish navigators in last quarter of 18th century; communicated by George Davidson. Report for 1885, app. 7, p. 275-284.**
- Magnetic work of Greely arctic expedition, 1881-1884; abstract of report by Charles A. Schott. Report for 1887, app. 10, p. 207-210. 5c.**
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- Magnetic observations made on Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730. Bull. 20, p. 211-214. 1891. 5c.***
- Results of observations made at Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, Jr., and Richard E. Halter, 1882-1889: pt. 1, Results of absolute measures of direction and intensity of earth's magnetic force; discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241. 10c.**
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- Same, abstract. Bull. 23, p. 225-232. 1891. 5c.***
- Magnetic observations made during Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730; discussion by C. A. Schott. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report for 1891, pt. 2, app. 5, p. 269-273.**
- Results of magnetic observations at stations in Alaska and in northwest territory of Dominion of Canada; observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, 1889, 1890, and 1891; discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.**
- Distribution of magnetic declination in Alaska and adjacent waters for 1895, and construction of isogonic chart for same epoch; by C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.**
- Secular variation in direction and intensity of earth's magnetic force in United States and in some adjacent foreign countries; by Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag.**
- Direction and intensity of earth's magnetic force at San Francisco, Cal.; by C. A. Schott. Bull. 33, p. 121-126. 1895.**
- Distribution of magnetic declination in United States for epoch Jan. 1, 1900; by Charles A. Schott. 3d ed. Report for 1896, app. 1, p. 147-235, 3 illus.**
- Distribution of magnetic dip and magnetic intensity in United States for epoch Jan. 1, 1900; by Charles A. Schott. 2d ed. Report for 1897, app. 1, p. 159-196, 3 maps.**
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Quincuncial projection of sphere; by C. S. Peirce. Report for 1877, app. 15, p. 191-192, 1 map.

Notes on original manuscript chart of Bering's expedition of 1725-1730, and on original manuscript chart of his second expedition; together with summary of journal of first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh's Russian version. By William Healey Dall. Report for 1890, app. 19, p. 759-774, 2 maps.

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Tables for polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 3d ed. Special publication 5. 189 p. 1 chart. 1910. [Replaces app. 6, Report for 1884.] 25c.

Notes relative to use of charts issued by Survey; by D. B. Wainwright. Special publication 6. 23 p. 1 fig. 1 pl. 6 diag. 1900. 5c.

Explanation of dates on United States Coast and Geodetic Survey charts. 1915. 2 p.

ALLIED SUBJECTS.

Nicaragua route for interoceanic ship canal, with review of other proposed routes; by Maximilian Von Sonnenstern to minister of public works of Nicaragua. Translated for Survey. 22 p. 1 map. 1874.

Hypsometric formula based upon thermodynamic principles; by Chas. A. Schott. Report for 1876, app. 19, p. 388-390.^a

Relation of lawful standards of measure of United States to those of Great Britain and France; by J. E. Hilgard. Report for 1876, app. 22, p. 402-406.

Blue clay of Mississippi River; by George Little. Report for 1880, app. 12, p. 145-171, 1 sketch. 10c.

Length of nautical mile; by J. E. Hilgard. Report for 1881, app. 12, p. 354-356. 5c.

Atlas de Filipinas. Special publication 3. 1899. \$3.15.^b

General properties of equations of steady motion; by Thos. Craig. 26 p. 1881.

Plan for light on St. George's bank; by Henry Mitchell. Report for 1885, app. 11, p. 483-485. 5c.

Examination of some early voyages of discovery and exploration on northwest coast of America, from 1530-1603; by George Davidson. Report for 1886, app. 7, p. 155-253, 1 map.

Resources of and developments in Alaska; by George Davidson. Bull. 4; p. 13-24. 1888.

Relation between metric standards of length of Coast and Geodetic Survey and Lake Survey; by C. A. Schott and O. H. Tittmann. Bull. 17, p. 165-173. 1889. 5c.

Report in relation to portion of boundary line in dispute between the States of Maryland and Virginia; by Henry L. Whiting. Report for 1890, app. 11, p. 621-623. 5c.

Relation of the yard to the meter; by O. H. Tittmann. Report for 1890, app. 16, p. 715-720. [This paper is a second edition of Bull. 9, revised by the author, with statement of later comparisons, confirming his results.]

Least square adjustment of weighings—Report prepared by direction of O. H. Tittmann, assistant, in charge of Office of Standard Weights and Measures; by John F. Hayford. Report for 1892, app. 10, p. 515-527. 5c.

State laws authorizing officers of Survey to enter upon lands within State limits for purposes of the Survey. Report for 1893, app. 1, p. 1-18.

Boundary line between Pennsylvania and Delaware: pt. 1, Historical account of boundary line; pt. 2, Detailed account of work on boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig. 3 maps, 2 facsim. 10c.

Preparation and arrangement of exhibit of Survey at World's Columbian Exposition; by D. B. Wainwright. Report for 1893, app. 10, p. 425-439. 5c.

Units of electrical measure. Approved for publication Dec. 27, 1893. Bull. 30, p. 99-104.

Legal units of electrical measure in United States. Approved Aug. 12, 1894. Bull. 31, p. 105-108.

General statement of administration and work of Survey, with historical sketch, 1807-1898; by H. S. Pritchett. Extract from report of Superintendent for 1897-98, p. 21-28, 1 sketch.

Hawaiian geographic names. Report for 1902, app. 7. 15c.^b

^a Appendixes 16-19 of report for 1876 are bound under one cover. Appendixes 16-18 are listed under the heading "Geodesy."

^b Available only from Superintendent of Documents at price stated.

List and catalogue of publications issued by Survey, 1816-1902, with supplement, 1903-1908; by E. L. Burchard and R. M. Brown. 237+44 p.

Same. Supplement to Aug., 1908.

Description of work, methods, and organization of Survey. Special publication 23. 56 p. 18 pl. 2 maps. 10c.^a

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MISCELLANEOUS PUBLICATIONS.

- Annual report of commissioner, 1915. 104 p. 1 text fig. [There are also on hand limited supply of each of annual reports since 1873, except those for 1879, 1881, 1882, 1883, 1886, 1902, 1905, and 1913.]
- Report upon fog-signal experiments; by Maj. William R. Livermore, Corps of Engineers, U. S. A. 376 p. 74 pl. 1894.
- Abrerations of audibility of fog signals; by Arnold B. Johnson, chief clerk, Lighthouse Board. 16 p. 1 pl. 1885.
- History of application of electric light to lighting coasts of France; by Maj. D. P. Heap, Corps of Engineers, U. S. A. 31 p. 25 pl. 1883.
- Memoir upon lighthouse illumination of coasts of France. (Reynaud.) Translated by Rear Admiral Thornton A. Jenkins, U. S. N., naval secretary, Lighthouse Board. 144 p. illus. 1871.
- Regulations for lighting bridges, 1915. 10 p. 5 pl.
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- Whitewash formulas. 1 p.
- Lighthouse Service. [Brief sketch of Lighthouse Service.] 4 p.
- Prevention of disease and care of sick and injured: Medical handbook for use of lighthouse vessels and stations; revised by W. G. Stimpson, M. D., Assistant Surgeon General, U. S. Public Health Service, with supplement on First aid to injured, by R. M. Woodward, M. D., surgeon, U. S. Public Health Service. June 11, 1915. 116 p. 61 text fig. 50c.^a

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- Seagoing vessels of United States, with official numbers and signal letters. Part 6 of 47th annual list of merchant vessels of United States, year ended June 30, 1915. (Printed exclusively for instruction of captains of sea-going vessels of United States.) 122 p. illus. 25c.^b
- Navigation laws of United States. May 18, 1915. 585 p. \$1.^c
- Rules for the St. Marys River. Apr. 15, 1911. 14 p.
- Radio communication laws and regulations of United States. July 27, 1914. 100 p. 15c.
- Radio stations of United States. July 1, 1915. 175 p. 15c.

^a Free distribution confined to Lighthouse Service. Copies bound in full Irish linen may be obtained from Superintendent of Documents, Government Printing Office, for 50 cents each.

^b Merchant Vessels of the United States, 1914, and Seagoing Vessels of the United States, 1914, were also printed under one cover as H. doc. 1449, 63d Cong., 3d sess., and copies may be obtained from the Superintendent of Documents at \$1 each.

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Radio Service bulletin, Nos. 10-12, Oct.-Dec., 1915. Various paging. 5c.; 25c. per annum.^a

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1. Effect of preliminary heating treatment upon drying of clays; by A. V. Bleininger. Dec. 6, 1910. 53 p. 1 pl. 17 text fig. 10c.
2. Strength of reinforced concrete beams. Results of tests of 383 beams (1st series). By R. L. Humphrey and L. H. Losse. June 27, 1911. 200 p. 11 pl. 11 charts, 33 text fig. 50c.
3. Tests of absorptive and permeable properties of Portland cement mortars and concretes, together with tests of damp-proofing and waterproofing compounds and materials; by R. J. Wig and P. H. Bates. Aug. 22, 1911. 127 p. 6 pl. 64 text fig. 20c.
4. Effect of added fatty and other oils upon carbonization of mineral lubricating oils; by C. E. Waters. Aug. 24, 1911. 14 p. 5c.
5. Effect of high-pressure steam on crushing strength of Portland cement mortar and concrete; by R. J. Wig. Sept. 5, 1911. 25 p. 2 pl. 6 text fig. 10c.
6. Determination of chromium, and its separation from vanadium, in steels; by J. R. Cain. Nov. 1, 1911. 6 p. 5c.
7. Testing of clay refractories, with special reference to their load-carrying capacity at furnace temperatures; by A. V. Bleininger and G. H. Brown. Dec. 15, 1911. 78 p. 30 text fig. 15c.
8. Rapid method for determination of vanadium in steels, ores, etc., based on its quantitative inclusion by phosphomolybdate precipitate; by J. R. Cain and J. C. Hostetter. Oct. 26, 1911. 20 p. 2 text fig. 5c.
9. Density and thermal expansion of linseed oil and turpentine; by Henry W. Bearce. Apr. 15, 1912. 27 p. 10c.
10. Melting points of fire bricks; by C. W. Kanolt. June 15, 1912. 17 p. 2 pl. 3 text fig. 5c.
11. Comparison of five methods used to measure hardness; by Ralph P. Devries. July 22, 1912. 27 p. 1 pl. 11 text fig. 5c.*
12. Action of salts in alkali water and sea water on cements; by P. H. Bates, A. J. Phillips, and R. J. Wig. Nov. 1, 1912. 157 p. 8 pl. 45 text fig. 25c.
13. Evaporation test for mineral lubricating and transformer oils; by C. E. Waters. Jan. 1, 1913. 13 p. 5c.
14. Legal specifications for illuminating gas; by E. B. Rosa and R. S. McBride. Jan. 10, 1913. 31 p. 10c.*

*Available only from Superintendent of Documents at price stated.

15. Surface insulation of pipes as means of preventing electrolysis; by Burton McCollum and O. S. Peters (with experience and opinions of pipe-owning companies with regard to prevention of electrolysis and soil corrosion by means of insulating coatings). Jan. 5, 1914. 44 p. 3 pl. 2 text fig. 15c.
16. Manufacture of lime; by Warren E. Emley. Feb., 1913. 130 p. 13 pl. 8 text fig. 25c.
17. Function of time in vitrification of clays; by G. H. Brown and G. A. Murray. May 20, 1913. 20 p. 1 pl. 10 text fig. 5c.
18. Electrolysis in concrete; by E. B. Rosa, Burton McCollum, and O. S. Peters. Mar. 19, 1913. 137 p. 9 pl. 24 text fig. 35c.^a
19. Physical testing of cotton yarns; by Walter S. Lewis. Apr. 1, 1913. 31 p. 1 text fig. 10c.^a
20. Determination of sulphur in illuminating gas; by R. S. McBride and E. R. Weaver. Mar. 7, 1913. 46 p. 14 text fig. 10c.
21. Dehydration of clays; by G. H. Brown and E. T. Montgomery. Apr. 25, 1913. 23 p. 9 text fig. 5c.^a
22. Effect of overfiring upon structure of clays; by A. V. Bleininger and E. T. Montgomery. May 15, 1913. 23 p. 8 text fig. 5c.
23. Technical control of colloidal matter of clays; by H. E. Ashley. Nov., 1911. 118 p. 8 pl. 11 text fig. 15c.
24. Determination of phosphorus in steels containing vanadium; by J. R. Cain and F. H. Tucker. May 17, 1913. 11 p. 5c.
25. Electrolytic corrosion of iron in soils; by Burton McCollum and K. H. Logan. June 12, 1913. 69 p. 10 text fig. 15c.
26. Earth resistance and its relation to the electrolysis of underground structures; by Burton McCollum and K. H. Logan. Dec. 20, 1915. 48 p. 17 text fig. 15c.
27. Special studies in electrolysis mitigation. 1. Preliminary study of conditions in Springfield, Ohio, with recommendations for mitigation. By E. B. Rosa and Burton McCollum. June 19, 1913. 55 p. 3 maps, 6 text fig. 15c.^a
29. Variations in results of sieving with standard cement sieves; by R. J. Wig and J. C. Pearson. Aug. 1, 1913. 16 p. 1 text fig. 5c.
30. Viscosity of porcelain bodies; by A. V. Bleininger and Paul Teetor. Nov. 20, 1913. 11 p. 5 text fig. 5c.
31. Some leadless borosilicate glazes maturing at about 1100° C.; by E. T. Montgomery. Dec. 15, 1913. 22 p. 1 text fig. 5c.
32. Special studies in electrolysis mitigation. 2. Electrolysis from electric railway currents and its prevention, experimental test on system of insulated negative feeders in St. Louis. By E. B. Rosa, Burton McCollum, and K. H. Logan. Dec. 27, 1913. 34 p. 2 maps. 10c.
33. Determination of carbon in steel and iron by barium carbonate titration method; by J. R. Cain. Jan. 31, 1914. 12 p. 1 text fig. 5c.
34. Determination of ammonia in illuminating gas; by J. D. Edwards. Mar. 2, 1914. 23 p. 6 text fig. 10c.
35. Combustion method for direct determination of rubber; by L. G. Wesson. Feb. 13, 1914. 11 p. 1 text fig. 5c.
36. Industrial gas calorimetry; by C. W. Waldner and E. F. Mueller. Mar. 1, 1914. 150 p. 13 pl. 13 text fig. 40c.
37. Iodine number of linseed and petroleum oils; by W. H. Smith and J. B. Tuttle. Apr. 23, 1914. 17 p. 7 text fig. 10c.
38. Observations on finishing temperatures and properties of rails; by G. K. Burgess, J. J. Crowe, H. S. Rawdon, and R. G. Waltenberg. Apr. 23, 1914. 63 p. 5 pl. 11 text fig. 35c.
39. Analysis of printing inks; by J. B. Tuttle and W. H. Smith. June 12, 1914. 20 p. 10c.
40. Veritas firing rings; by A. V. Bleininger and G. H. Brown. June 5, 1914. 10 p. 4 text fig. 5c.

41. Lead acetate test for hydrogen sulphide in gas; by R. S. McBride and J. D. Edwards. Aug. 19, 1914. 46 p. 11 pl. 7 text fig. 25c.
42. Standardization of No. 200 cement sieves; by Rudolph J. Wig and J. C. Pearson. July 30, 1914. 51 p. 4 pl. 1 text fig. 10c.
43. Hydration of Portland cement; by A. A. Klein and A. J. Phillips. Apr. 18, 1914. 71 p. 6 pl. 9 text fig. 20c.
44. Investigation of durability of cement drain tile in alkali soils; by R. G. Wig, G. M. Williams, S. H. McCrory, E. C. Bebb, and L. R. Ferguson. July 22, 1915. 56 p. 18 pl. 2 p. of pl. 16 text fig. 35c.
45. Study of some recent methods for determination of total sulphur in rubber; by J. B. Tuttle and A. Isaacs. May 5, 1915. 10 p. 5c.
46. Study of Atterberg plasticity method; by Charles S. Klunison. May 25, 1915. 18 p. 3 text fig. 5c.
47. Value of high-pressure steam test of Portland cements; by R. J. Wig and H. A. Davis. Aug. 18, 1915. 34 p. 2 pl. 4 text fig. 15c.
48. Air analyzer for determining fineness of cement; by J. C. Pearson and W. H. Sligh. Sept. 8, 1915. 74 p. 4 pl. 2 p. of pl. 12 text fig. 20c.
49. Emergent stem correction for thermometers in creosote oil distillation flasks; by R. M. Wilhelm. Aug. 14, 1915. 19 p. 6 text fig. 10c.
50. Viscosity of porcelain bodies high in feldspar; by A. V. Bleininger and C. S. Kinnison. Sept. 25, 1915. 7 p. 4 text fig. 5c.
51. Use of sodium salts in purification of clays and in casting process; by A. V. Bleininger. Sept. 25, 1915. 40 p. 3 pl. 13 text fig. 15c.
52. Electrolysis and its mitigation; by E. B. Rosa and Burton McCollum. Dec. 27, 1915. 143 p. 3 pl. 38 text fig. 30c.
53. Investigation of fusible tin boiler plugs; by George K. Burgess and Paul D. Merica. Oct. 15, 1915. 37 p. 2 pl. 6 p. of pl. 2 text fig. 20c.
55. Special studies in electrolysis mitigation: IV. Preliminary report on electrolysis mitigation in Elyria, Ohio, with recommendations for mitigation; by Burton McCollum and K. H. Logan. Jan. 22, 1916. 49 p. 4 litho. 1 folder. 5 text fig. 20c.
56. Protection of life and property against lightning; by O. S. Peters. Dec. 15, 1915. 127 p. 8 pl. 35c.
57. Difference in weight between raw and clean wools; by Walter S. Lewis. Sept. 28, 1915. 5 p. 5c.
60. Microstructural changes accompanying annealing of cast bronze (Cu 88, Sn 10, Zn 2); by Henry S. Rawdon. Jan. 25, 1916. 17 p. 4 pl. 1 text fig. 10c.
64. Determination of barium carbonate and barium sulphate in vulcanized rubber goods; by John B. Tuttle. Jan. 21, 1916. 5 p. 5c.
66. Detection of resin in drier; by E. W. Boughton. Jan. 15, 1916. 9 p. 5c.
67. Some qualitative tests for gum arabic and its quantitative determination; by C. E. Waters and J. B. Tuttle. Jan. 31, 1916. 15 p. 5c.

BUREAU CIRCULARS.

2. Measurements of length and area, including thermal expansion. 5th ed. Apr. 30, 1915. 21 p.
5. Testing of clinical thermometers. 2d ed. June 30, 1911. 14 p. 5c.
6. Fees for electric, magnetic, and photometric testing. 6th ed. Oct. 1, 1914. 27 p. 10c.
7. Pyrometer testing and heat measurements. 5th ed. Oct. 1, 1913. 19 p. 5c.
8. Testing of thermometers. 2d ed. June 30, 1911. 52 p. 1 text fig.
9. Testing of glass volumetric apparatus. 7th ed. Oct. 1, 1914. 31 p. 10 text fig. 10c.^a
10. Legal weights (in pounds) per bushel of various commodities. 2d ed. May 15, 1911. 10 p. 5c.
11. Standardization of bomb calorimeters. 2d ed. July 1, 1915. 17 p. 5c.

13. Standard specifications for incandescent electric lamps. 7th ed. Oct. 23, 1915. 14 p. 10c.
14. Analyzed irons and steels, methods of analysis. 4th ed. July 15, 1913. 15 p. 5c.
15. International unit of light. 3d ed. July 1, 1911. 7 p. 5c.
16. Testing of hydrometers. 3d ed. Jan. 15, 1914. 16 p. 1 pl. 1 text fig. 5c.
18. Standard gage for sheet and plate iron and steel. 2d. ed. July 1, 1911. 4 p. 5c.
19. Standard density and volumetric tables. 4th ed. Apr. 1, 1914. 54 p. [Also Supplement. Master scales for graduation of hydrometers. 9 p.] 5c.*
20. Testing of electrical measuring instruments. 2d ed. May 28, 1915. 57 p. 15c.*
23. Standardization of electrical practice in mines. July 15, 1910. 93 p. 15c.
24. Publications of Bureau of Standards. 4th ed. July 1, 1913. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstracts of each title.] 54 p. [Also Supplements 1 and 2, bringing the list up to Jan. 1, 1916.]
25. Standard analyzed samples. General information. 5th ed. Sept. 1, 1913. 12 p. [Also Insert. 4 p.] 5c.*
26. Analyzed iron and manganese ores, methods of analysis. 3d ed. May 26, 1913. 20 p. 5c.
28. Determination of optical properties of materials. Mar. 1, 1911. 19 p. 5c.*
29. Announcement of change in value of international volt. Dec. 31, 1910. 13 p. 5c.*
30. Lime: Its properties and uses. Apr. 15, 1911. 22 p. 5c.*
31. Copper-wire tables. 3d ed. Oct. 1, 1914. 76 p. 3 text fig. 10c.
32. Standards for gas service. 3d ed. Mar. 10, 1915. 197 p. 35c.
33. United States Government specification for Portland cement. 2d ed. July 1, 1913. 28 p. 10 text fig. 10c.
34. Relation of horsepower to kilowatt. 3d ed. May 15, 1915. 16 p. 5c.
35. Melting points of chemical elements. 2d ed. Jan. 1, 1915. 2 p. 5c.
36. Testing and properties of electric condensers. June 30, 1912. 26 p. 1 chart, 2 text fig. 5c.
37. Electric wire and cable terminology. 2d ed. Jan. 1, 1915. 13 p. 15 text fig. 5c.
38. Testing of rubber goods. 3d ed. July 19, 1915. 89 p. 35 text fig. 15c.
39. Specifications for and measurement of standard sieves. 1912. 14 p. 5c.*
40. Sodium oxalate as standard in volumetric analysis. 2d ed. May 15, 1913. 13 p. 5c.
41. Testing and properties of textile materials. 2d ed. Aug. 27, 1915. 26 p. 10c.
42. Metallographic testing. Sept. 1, 1913. 16 p. 5c.
43. Metric carat. Nov. 1, 1913. 12 p. 5c.
44. Polarimetry (and polarimetric analysis of raw and other sugars). Jan. 15, 1914. 140 p. 2 pl. 9 text fig. 35c.* [Supersedes Cir. 12.]
45. Testing of materials. Nov. 1, 1913. 89 p.
46. Testing of barometers. 2d ed. July 15, 1914. 12 p. 5c.
47. Units of weight and measure; definitions and tables of equivalents. July 1, 1914. 68 p. 15c. [Supersedes miscellaneous publication, "Tables of equivalents of United States customary and metric weights and measures."]
48. Standard methods of gas testing. Aug. 1, 1914. 180 p. 1 pl. 15 text fig. 35c.
49. Safety rules to be observed in operation of electrical equipment and lines (Part 4 of Proposed national electrical safety code.) 2d ed. May 4, 1915. 50 p. 10c.
50. National standard hose couplings and fittings for public fire service. Nov. 25, 1914. 23 p. 1 pl. 4 text fig. 10c.

51. Measurement of time and tests of timepieces. Dec. 1, 1914. 39 p. 1 pl. 7 text fig. 15c.
52. Regulation of electrotyping solutions. Jan. 25, 1915. 13 p. 1 text fig. 5c.
53. Composition, properties, and testing of printing inks. Mar. 29, 1915. 35 p. 10c.
54. Proposed national electrical safety code. Apr. 29, 1915. 137 p. 25c.
55. Measurements for the household. Aug. 28, 1915. 149 p. 1 pl. 61 text fig. 15c.
57. United States standard tables for petroleum oils. Jan. 29, 1916. 64 p. 2 text fig. 15c.

MISCELLANEOUS.

- Annual report of Director, 1915. 148 p. [There are also available copies of annual reports for 1903, 1904, 1912, and 1913.]^a
- International metric system. (Chart.)
- International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.
- First conference on weights and measures of United States. Jan. 16, 17, 1905. 46 p. 10c.
- Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.
- Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.
- Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.
- Fifth annual conference on weights and measures of United States. Feb. 25, 26, 1910. 123 p. 15c.
- Sixth annual conference on weights and measures of United States. Feb. 17, 18, 1911. 158 p. 1 text fig. 20c.
- Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.
- Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.
- Ninth annual conference on weights and measures of United States. May 26-29, 1914. 176 p. 1 pl. 8 text fig. 20c.
- National Bureau of Standards. Description of work of Bureau. 24 p.
- Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan. 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]
- Tolerances and specifications for weights and measures and weighing and measuring devices. 29 p. 2 text fig.

STEAMBOAT-INSPECTION SERVICE.

Two regular publications are issued by the Steamboat-Inspection Service, as follows:

Report of the Supervising Inspector General. (Annual.)

List of Officers of Merchant Steam, Motor, and Sail Vessels Licensed During the Fiscal Year Ending June 30 for a Period of Five Years. (Annual.)

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

^a Copies of the annual reports of the Director may be obtained from the Superintendent of Documents as follows: 1905, 5c.; 1906, 10c.; 1909, 5c.; 1911, 5c.; 1912, 5c.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest available editions of the publications are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General, 1915. 53 p. [There are also available copies of annual reports for 1910-1912 and 1914.]^a

List of officers of merchant steam, motor, and sail vessels licensed during year ended June 30, 1915, for period of five years. 220 p. 15c.

Laws governing Steamboat-Inspection Service. Ed. Apr. 4, 1915. 86 p.

General rules and regulations prescribed by Board of Supervising Inspectors, as amended Jan., 1914, and further amended Aug. 6, 1915. Ed. Aug. 11, 1915. 370 p. 19 text fig.

Rule III, ocean and coastwise, and lakes, bays, and sounds, [from] General rules and regulations prescribed by Board of Supervising Inspectors. Ed. Nov. 4, 1915. 71 p. 1 text fig.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. Sept. 1, 1914. 34 p. 5 text fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.

^a The Superintendent of Documents can supply copies of annual reports as follows: 1910, 25c.; 1912, paper, 10c.; cloth, 25c.; 1914, 5c.



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NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications, many of which are intended for free but judicious distribution.

This pamphlet, which contains a complete list of the publications of the Department available for distribution, revised and corrected to date of issue, is published twice each year and contains general information concerning the publications issued by the Department. There is also published each month a list of publications issued by the Department during that month. Persons desiring to have their names placed on the mailing list to receive copies of either the complete list or the monthly list should address the "Chief, Division of Publications, Department of Commerce, Washington, D. C."

The reports of the Department are, unless otherwise noted, supplied to applicants without expense so long as the editions allowed for distribution will permit, and where prices are given in this list they can also be purchased from the "Superintendent of Documents, Government Printing Office, Washington, D. C.," to whom remittances should be sent direct, as his office is not a part of the Department of Commerce. For the convenience of the general public, coupons that are good until used in exchange for Government publications sold by the Superintendent of Documents may be purchased from his office in sets of 20 for \$1.

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Coast Pilots, Inside Route Pilots, Tide Tables and Charts, which are sold by the Coast and Geodetic Survey, and Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for other publications given in this list should be addressed to the bureaus in which the publications originate. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address, and stating specifically the publication or publications received by them. The Department should also be notified promptly when publications are no longer desired.

DAN C. VAUGHAN,
Chief, Division of Publications.

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PUBLICATIONS OF THE DEPARTMENT OF COMMERCE AVAILABLE FOR DISTRIBUTION.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1915. 239 p. 2 litho. 2 pl. 7 text fig. [There is also on hand limited supply of Secretary's report for each of years 1903 to 1914, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated], 1915. 961 p. 2 pl. 2 litho. 9 text fig. [There is also on hand limited supply of consolidated reports of Department for each of years 1904, 1905, 1906, 1911, 1912, 1913, and 1914.]

Annual report of Chief of Appointment Division, 1915. 24 p. [There are also available copies of each annual report from 1910 to 1914, inclusive.]

Annual report of Chief of Division of Publications, 1915. 40 p. [There are also available copies of each annual report from 1907 to 1914, inclusive.]

Condensed history, duties, and practical operation of Department and its several bureaus and offices. July 1, 1913. 63 p.

Same, together with laws relating specifically thereto. July 1, 1913. 211 p.

List of publications of department available for distribution. 14th ed. Oct. 2, 1916. 83 p.

List of publications issued by Department. 4 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

Standardization in construction of freight ships; by E. Platt Stratton. May, 1916. 16 p. 2 text fig. 5c.

Advisory conference on subject of making passenger vessels more secure from destruction by fire. May 3, 1916. 63 p.

Proceedings of conference on automatic sprinklers on vessels. May 22, 1916. 34 p. 2 text fig.

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6, 1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of

cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are supplied to applicants without expense so long as the editions allowed for free distribution will permit, and can also be purchased at prices stated in this list from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1880) REPORTS.

Agriculture: Including cereal production; flour-milling processes; tobacco; meat production. 1149 p. \$1.50.^a

Compendium of Tenth Census of United States, 1880. — p. \$1.10.^a

Same, revised edition, pt. 1, 1885. — p. 65c.^a

Same, revised edition, pt. 2, 1888. — p. 55c.^a

Cotton production: pt. 1, Mississippi Valley and Southwestern States. 924 p. \$1.30.

Same: pt. 2, Eastern Gulf, Atlantic, and Pacific States. 848 p. \$1.30.

Defective, dependent, and delinquent classes of population (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p. 75c.

Forests of North America, 1884. 622 p. \$1.25.^a

History and present condition of fishery industries. — p. 25c.^a

Manufactures: Including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass. 1248 p. \$1.50.^a

Mining industries (exclusive of precious metals). 1064 p. \$2.^a

Mining laws and regulations—United States, State, Territorial, and local. 716 p. \$1.10.

Mortality and vital statistics: pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p. \$1.20.^b

Same: pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p. \$1.60.

Plates and diagrams accompanying part 2 of report on mortality and vital statistics, 1886. 65c.^a

Newspaper and periodical press; Alaska; seal islands; shipbuilding. 1122 p. \$1.60.^a

Oyster industry. 251 p. Half leather, \$1; cloth, 50c.

Petroleum, coke, and building stones. 872 p. \$1.75.^a

Population: By States, counties, and minor civil divisions, with distinction of race, sex, age, nativity, and occupations, together with summary tables relating to newspapers and periodicals; public schools; illiteracy; the dependent, defective, and delinquent classes. 1054 p. \$1.50.^a

Power and machinery employed in manufactures, and ice industry of United States. 666 p. 85c.

Precious metals, statistics and technology of. 558 p. \$1.^a

Social statistics of cities: pt. 1, New England and Middle States. Includes streets, street railways, public buildings and works, sanitation, government schools, and commerce and industry. 924 p. \$1.50.^a

Same: pt. 2, Southern and Western States, 1880. 850 p. \$1.35.^a

Transportation agencies in United States. 870 p. \$1.25.^a

Valuation, taxation, and public indebtedness. 920 p. \$1.35.

^a Available only from Superintendent of Documents at price stated.

^b Separate copies of pt. 1 not available. The Superintendent of Documents can supply pts. 1 and 2 in sets, at \$2.25 per set.

Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts. 792 p. \$1.10.^a
 Water power of United States, 1885: pt. 1. 874 p. \$1.25.^a
 Same, 1887: pt. 2. 788 p. \$1.^a

ELEVENTH CENSUS (1890) REPORTS.

Abstract. 312 p. 25c.^a
 Agriculture by irrigation. 946 p. \$1.50.^a
 Agriculture by irrigation. 336 p. 80c.^a
 Alaska, population and resources of. 294 p. \$1.15.^a
 Annual report of Superintendent of the Census, 1889, — p., 5c.;^a 1890, — p., 5c.;^a 1895, — p., 5c.;^a 1896, — p., 5c.;^a 1897, — p., 5c.^a
 Churches. 840 p. \$1.10.
 Compendium: pt. 1, Population; dwellings and families; Alaska. 1098 p. \$1.15.
 Same: pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1070 p. \$1.10.^a
 Same: pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians taxed and not taxed. 1158 p. \$1.05.^a
 Crime, pauperism, and benevolence in United States: pt. 1, Analysis. 420 p. 70c.^a
 Same: pt. 2, General tables. 1048 p. \$1.^a
 Eastern Cherokees of North Carolina. 24 p. 25c.
 Education. 141 p.
 Farms and homes, proprietorship, and indebtedness in United States, 1896. 658 p. \$1.10.^a
 Five Civilized Tribes in Indian Territory. 70 p. 25c.
 Indians taxed and not taxed. 692 p. \$2.35.^a
 Insane, feeble-minded, deaf and dumb, and blind. 768 p. \$1.10.^a
 Insurance business: pt. 1, Fire, marine, and inland insurance. 1138 p. \$1.^a
 Same: pt. 2, Life insurance. 490 p. 70c.^a
 Manufacturing industries in United States: pt. 1, Totals for States and industries. 1002 p. \$1.^a
 Same: pt. 2, Statistics of cities. 827 p. 95c.^a
 Same: pt. 3, Selected industries. 733 p. 85c.^a
 Mineral industries. 874 p. \$1.50.^a
 Occupations, census of 1890. 127 p. 15c.
 Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; foreign parentage; conjugal condition; school, militia, and voting ages; dwellings and families; Indians; Alaska. 1181 p. \$1.35.^a
 Same: pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1140 p. \$1.10.^a
 Population of United States by minor civil divisions as returned at Eleventh Census, June 1, 1890. — p. 60c.^a
 Real estate mortgages. 956 p. \$1.15.
 Social statistics of cities in United States. 146 p. 50c.^a
 Statistical atlas of United States based upon results of Eleventh Census. 70 p. \$4.^a
 Textiles, census of 1890. 236 p.
 Transportation business in United States: pt. 1, Transportation by land. 875 p. 95c.^a
 Same: pt. 2, Transportation by water. 532 p. 70c.^a

Vital and social statistics: pt. 1, Analysis and rate tables. 1077 p. \$1.40.^a
 Same: pt. 2, Cities of 100,000 population and upward. 1191 p. \$1.35.^a
 Same: pt. 3, Statistics of deaths. 1057 p. \$1.^a
 Same: pt. 4, Statistics of deaths. 1039 p. \$1.^a
 Vital statistics covering period of six years ended May 3, 1890; Boston and Philadelphia. 278 p. 75c.^a
 Same: District of Columbia and Baltimore. 250 p. 75c.^a
 Same: New York and Brooklyn. 538 p. \$1.^a
 Wealth, debt, and taxation: pt. 1, Public debt. 902 p. \$1.20.
 Same: pt. 2, Valuation and taxation. 662 p. 80c.

TWELFTH CENSUS (1900) REPORTS.

Abstract. 470 p. 30c.
 Agriculture: pt. 1, Farms, live stock, and animal products. 1003 p. \$2.
 Same: pt. 2, Crops and irrigation. 880 p. \$2.^a
 Annual report of Director of the Census, 1899, 5 p., 5c.; ^a 1900, 21 p., 5c.; ^a 1901, 14 p., 5c.^a
 Employees and wages, 1900. 289 p. \$2.^a
 Manufactures: pt. 1, United States by industries. 1039 p. \$2.^a
 Same: pt. 2, By States and Territories. 1111 p. \$2.^a
 Same: pt. 3, Selected industries, including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleomargarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1143 p. \$2.^a
 Same: pt. 4, Selected industries, including iron and steel; tin andterne plate; lead, copper, and zinc smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p. \$2.^a
 Manufactures—Textiles (monograph). 258 p. 50c.
 Occupations at Twelfth Census. 1029 p. \$2.^a
 Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in United States. 1236 p. \$2.^a
 Same: pt. 2, Ages, in detail; school, militia, and voting ages; conjugal condition; school attendance; illiteracy; inability to speak English; occupations; dwellings and families; proprietorship of homes. 978 p. \$2.^a
 Population of United States by States and Territories, counties, and minor civil divisions. [From Twelfth Census, 1900, vol. 1, Population, pt. 1.] 480 p. 50c.^a
 Statistical atlas, 1900. 298 p. 207 pl. 91 text fig. \$4.^a
 Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1162 p. \$2.
 Vital statistics: pt. 1, Analysis and ratio tables. 1009 p. \$2.^a
 Same: pt. 2, Statistics of deaths. 1061 p. \$2.^a
 Wealth, debt, and taxation—Abstract. 31 p. 10c.
 Women at work. 1900. 400 p. 85c.^a

^a Available only from Superintendent of Documents at price stated.

THIRTEENTH CENSUS (1910) REPORTS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

Population: vol. 1, General report and analysis. 1369 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Number of inhabitants; 104 p. 2. Color or race, nativity, and parentage; 122 p. 3. Sex distribution; 42 p. 4. Age distribution; 218 p. 5. Marital condition; 182 p. 6. State of birth; 92 p. 7. Country of birth; 94 p. 8. Foreign white stock; 84 p. 9. Mother tongue; 58 p. 10. Year of immigration; 16 p. 11. Voting and militia ages; 64 p. 12. School attendance; 88 p. 13. Illiteracy; 80 p. 14. Inability to speak English; 20 p. 15. Dwellings and families; 8 p. 16. Ownership of homes; 74 p.] \$1.60.

Same, vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1160 p. \$1.50.

Same, vol. 3, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1225 p. \$1.50.

Same, vol. 4, Occupation statistics. 615 p. [The following tables from this volume have been reprinted as separates: 3. Occupation statistics, cities of 100,000 and over; 57 p. 4. Occupation statistics, cities of 25,000 and over; 85 p. 5 and 9. Occupation statistics, Alaska, Hawaii, and Porto Rico; 19p.] \$1.

Agriculture: vol. 5, General report and analysis. 927 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 88 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 146 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.] \$1.40.

Same, vol. 6, Reports by States, with statistics for counties—Alabama to Montana. 977 p. \$1.25.

Same, vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1013 p. \$1.35.

Manufactures: vol. 8, General report and analysis. 845 p. [The following portions of this volume have been reprinted as separates: Tables 5 and 6. Comparative summary, principal industries, by States, 1909, 1904, and 1899; establishments, persons engaged, power, capital, expenses, and value of products; industries, by States, 1909; 245 p. Chap. 15 and Table 1. Description of individual industries with principal statistics for each; 145 p.] \$1.10.

Same, vol. 9, Reports by States, with statistics for principal cities. 1404 p. \$1.65.

Same, vol. 10, Reports for principal industries. 975 p. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motorcycles, and parts; 6 p. Blast

furnace, steelworks and rolling mill, wire, and tinplate and terneplate industries; 80 p. Boots and shoes, including cut stock and findings; 20 p. Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products; General chemical industry; bone, carbon, and lampblack; dyestuffs and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p. Flour-mill and gristmill products; 24 p. Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 19 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 19 p. Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p. Paper and wood pulp; 16 p. Petroleum refining; 10 p. Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 19 p. Silk manufactures [also included in Textiles]; 25 p. Slaughtering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p. Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 18 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p. \$1.25.

Mining: vol. 11, Mines and quarries. 369 p. 65c. [The following sections of this volume have been printed as separates: Coal 55 p. Iron mines, 25 p.]

Abstract of the Census with State supplements.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries).

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:

Introduction.

Population: 1. Number and distribution of inhabitants. 2. Color or race, nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native population. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries. \$1.

State supplements.

These supplements vary in size from 37 pages (District of Columbia) to 225 pages (New York).

Alabama, 20c.; Alaska, 10c.; Connecticut, 20c.; District of Columbia, 10c.; Georgia, 25c.; Hawaii, 10c.; Idaho, 15c.; Illinois, 30c.; Indiana, 25c.; Iowa, 25c.; Kansas, 25c.; Kentucky, 25c.; Louisiana, 20c.; Maine, 15c.; Maryland, 15c.; Massachusetts, 20c.; Michigan, 25c.; Minnesota, 25c.; Mississippi, 15c.; Missouri, 25c.; Montana, 20c.; Nebraska, 20c.; Nevada, 15c.; New Hampshire, 15c.; New Jersey, 20c.; New Mexico, 15c.; New York, 35c.; North Carolina, 20c.; North Dakota, 15c.; Ohio, 30c.; Oklahoma, 20c.; Oregon, 20c.; Pennsylvania, 30c.; Porto Rico, 15c.; Rhode Island, 15c.; South Carolina, 15c.; Tennessee, 20c.; Texas, 40c.; Utah, 15c.; Vermont, 15c.; Virginia, 25c.; Washington, 20c.; West Virginia, 15c.; Wisconsin, 20c.; and Wyoming, 15c.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States and, where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p. Color or race, nativity, parentage, sex, and males of voting and militia ages [reprint of chap. 2 of Abstract]; 43 p. 5c. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. 5c. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. 5c. Country of origin of population of foreign birth and parentage, and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. 5c. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p. 5c.

Agriculture: Farms and farm property; 20 p. 5c. General farm crops; 28 p. Live stock on farms and elsewhere; 34 p. 5c. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. 5c. Crops; 59 p. 10c. Live-stock products, and domestic animals sold or slaughtered on farms; 16 p. 5c.

Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p. 5c.

Manufactures: Manufactures, by States, cities, and industries; 96 p. 10c.

Mines: Statistics of mining, for industries and States; 24 p. 5c.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

- Center of population and median lines, continental United States. 8 p. 5c.
 Cities and their suburbs. 6 p.
 Iron mines. 25 p. 5c.^a
 Irrigation: Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas. 28 p. 5c.^a
 Occupation statistics [summary of vol. 4 of final reports]. 107 p. 20c.
 Population of cities of 2,500 inhabitants and over. 46 p.
 Population of counties and equivalent subdivisions. 30 p. 5c.
 Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p. 65c.
 Population of incorporated places. 111 p. 15c.
 Statistics of manufactures for metropolitan districts, 1909. 77 p. 15c.^a
 Total population and area of the United States, by States and Territories. 16 p. 5c.

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

- Age of farmers, by color of operator, character of tenure, and size of farm. 35 p. 10c.
 Chinese and Japanese in the United States. 50 p. 15c.
 Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.] 5c.
 Population of New York City, by enumeration districts. 23 p. 5c.
 Stability of farm operators, or term of occupancy of farms. 22 p. 5c.
 Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p. 5c.

INTERCENSAL REPORTS (1900-1915).

- Benevolent institutions: 1904, 335 p., 50c.; 1910, 411 p., 75c.
 Blind and deaf: 1900. 274 p. 60c.
 Central electric light and power stations: 1902, 185 p., cloth, 50c., paper, 25c.;^a 1907, 198 p., 50c.^a
 Central electric light and power stations and street and electric railways: 1912. 440 p. \$1.
 Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p. \$1.10.
 Electrical industries: 1902. 822 p. \$1.65.
 Express business in United States: 1907. 28 p. 10c.
 Financial statistics of cities having population of over 30,000: 1905, 372 p., 50c.; 1906, 358 p., cloth, 85c., paper, 50c.; 1907, 548 p., cloth, 85c., paper, 65c.;^a 1908, 354 p., cloth, 75c.;^a 1909, 279 p., 55c.; 1910, 308 p., 60c.; 1911, 401 p., 75c.; 1912, 410 p., 75c.;^a 1915, 338 p.
 Financial statistics of States: 1915. 125 p.
 Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p. 70c.
 General statistics of cities: 1909. 197 p. 45c.
 Same: 1915. 185 p. 55c.
 Indians in United States and Alaska: 1910. 285 p. 65c.
 Insane and feeble-minded in institutions: 1904, 238 p., cloth, 60c.; paper, 25c.; 1910, 217 p., 55c.
 Manufactures: 1905, pt. I, United States by industries. 1080 p. \$1.35.
 Same: pt. II, States and Territories. 1244 p. \$1.50.^a
 Same: pt. III, Selected industries. 968 p. \$1.30.^a
 Same: pt. IV, Selected industries. 856 p. \$1.75.^a

Marriage and divorce: 1867-1906, pt. 1, 535 p., \$1; pt. 2, General tables, 850 p. \$1.50.

Mines and quarries: 1902. 1153 p. \$1.50.

Mortality: 1900-1904, 1003 p., \$1.25; 1905, 360 p., \$1; 1906, 486 p., 80c.; 1907, 538 p., \$1.25; 1908, 706 p., \$1.10;^a 1909, 810 p., \$1.25; 1910, 611 p., 90c.;^a 1911, 572 p., \$1; 1912, 382 p., 75c.; 1913, 631 p., 90c.; 1914, 714 p.

Paupers in almshouses: 1904, 218 p., cloth, 60c.; paper, 25c.; 1910, 141 p., 50c.

Prisoners and juvenile delinquents, 1904. 295 p. 40c.^a

Religious bodies: 1906, pt. 1, Summary and general tables, 576 p., \$1; pt. 2, Separate denominations: History, description, and statistics, 670 p., \$1.

Street and electric railways, 1902, 452 p., 75c.;^a 1907, 576 p., \$1.10.^a

Telephones and telegraphs: 1902. 184 p. Cloth, 75c.

Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p., 55c.

Telephones and telegraphs and municipal electric fire-alarm and police-patrol signaling systems: 1912. 208 p. 50c.

Transportation by water: 1906. 240 p. 90c.

Special report: Wealth, debt, and taxation, 1900-1904. 1246 p. \$2.^a

Wealth, debt, and taxation: 1913, vol. 1, 886 p., \$1.25; vol. 2, 756 p., \$1.

INTERCENSAL BULLETINS (1900-1916).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects. Miscellaneous unnumbered bulletins and pamphlets issued by the Bureau of the Census are listed on pages 18-19.

Miscellaneous.

Age statistics, discussion: 1880, 1890, 1900-13. 53 p. 10c.

The blind population of the United States: 1910-130. 52 p. 15c.

Central electric light and power stations and street and electric railways: 1912-124. 113 p. 25c.

Child labor in District of Columbia: Twelfth Census, 1900-68. 21 p. 10c.^a

Child labor in United States: Twelfth Census, 1900-69. 200 p. 25c.^a

Chinese and Japanese in United States: 1910-127. 50 p. 15c.

Commercial valuation of railway operating property in United States: 1904-21. 88 p. 10c.

Cotton ginned in United States: Crops of 1899 to 1902, inclusive-2, 46 p., 5c.; 1899 to 1903-10, 10c.;^a 1900 to 1904-19, 10c.^a

Cotton production: 1905^b-40, 72 p., 10c.; 1906-76, 68 p., 10c.; 1907-95, 58 p., 15c.; 1908-100, 63 p., 15c.; 1909-107, 64 p., 10c.; 1910^b-111, 66 p., 15c.; 1911-114, 61 p., 10c.; 1912-116, 63 p., 10c.; 1913-125, 79 p., 15c.

Cotton production and distribution: 1914-15-131. 102 p. 10c.

Cotton supply and distribution for year ended Aug. 31, 1905-25, 15 p., 5c.; 1906-63, 25 p., 10c.; 1907-80, 26 p., 10c.; 1908-97, 40 p., 15c.; 1909-106, 32 p., 10c.; 1910-110, 32 p., 5c.; 1911-113, 31 p., 10c.; 1912-115, 31 p., 10c.; 1913-117, 40 p., 10c.; 1914-128, 30 p., 10c.

Deaf and dumb population of United States: 1910. 8 p. 5c.

^a Available only from Superintendent of Documents at price stated.

^b The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

- Discussion of increase of population: 1903—4. 63 p. 10c.^a
- Earnings of wage earners (a study based on census of manufactures, 1905)—83. 179 p. 25c.
- Electrical industries of Porto Rico: 1907—99. 29 p. 10c.
- Estimates of population: 1904, 1905, 1906—71, 28 p., 10c; 1910—1914—122, 24 p. 5c.^a
- Estimates of population of larger cities of United States in 1901—1903—7. 21 p. 10c.
- Executive civil service of United States, statistics of employees: 1904—12, 239 p., 25c; 1907—94, 164 p., 20c.
- Financial statistics of cities having population of 8,000 to 25,000: 1903—45. 231 p. 25c.
- Financial statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p. 40c.
- Financial statistics of cities having population of over 30,000: 1904—50, 209 p., 25c.; 1907 (abstract of annual report)—105, 94 p., 15c.; 1912—118, 83 p., 15c.; 1913—126, 73 p., 15c.; 1915—132, 117 p., 25c.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p. 5c.
- Illiteracy in United States (study based on reports of Twelfth and preceding censuses)—26. 54 p. 10c.
- Increase of population: 1890 to 1900, discussion of—4. 63 p. 10c.
- Industrial districts: 1905. Manufactures and population—101. 81 p. 15c.
- Insane and feeble-minded in institutions: 1910—119. 99 p. 20c.
- Insular and municipal finances in Porto Rico for fiscal year 1902—3—24. 31 p. 5c.
- Irrigation in United States: 1902—16. 92 p. 10c.^a
- Marriage and divorce: 1887—1906—96. 71 p. 15c.
- Mineral industries of Porto Rico: 1902—6. 18 p. 15c.
- Mines and quarries: 1902—9. 59 p. 10c.
- Mortality statistics: 1903—104, 133 p., 20c.; 1909—108, 138 p., 20c.;^a 1910—109, 191 p., 30c.; 1911—112, 142 p., 25c.^a
- Municipal electric fire-alarm and police-patrol systems: 1902—11. 33 p. 10c.
- Negroes in the United States: 1910—129. 207 p. 35c.
- Paupers in almshouses: 1910—120. 99 p. 20c.
- Population of Oklahoma and Indian Territory: 1907—89. 43 p. 15c.
- Prisoners and juvenile delinquents: 1910—121. 130 p. 15c.
- Proportion of children in United States (study based on reports of Twelfth and preceding censuses)—22. 27 p. 5c.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding censuses)—14. 51 p. 10c.
- Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p. 20c.
- Street and electric railways, 1912—3. 193 p. 5c.^a
- Supervisors districts for Thirteenth Census: 1910—98. 19 p. 15c.
- Teachers, statistics (study based on reports of Twelfth and preceding censuses)—23. 20 p. 5c.
- Telegraph systems: 1907—102. 47 p. 25c.
- Telephones and telegraphs: 1902—17, 49 p., 10c.; 1912—123, 26 p., 10c.
- Transportation by water: 1906. United States—91. 57 p. 10c.
- Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p. 10c.

Wealth, debt, and taxation.

The statistics presented in these bulletins are reproduced in Volumes I and II of the report on Wealth, Debt, and Taxation: 1913.

Abstract of special bulletins: 1913. 63 p. 10c.

^a Available only from Superintendent of Documents at price stated.

- Assessed valuation of property and amounts and rates of levy: 1860-1912. 176 p. 35c.
- County and municipal indebtedness: 1913, 1902, and 1890; and sinking-fund assets, 1913. 228 p. 25c.
- County revenues, expenditures, and public properties: 1913. 338 p. 50c.
- Estimated valuation of national wealth: 1850-1912. 20 p. 10c.
- Municipal revenues, expenditures, and public properties: 1913. 378 p. 70c.^a
- National and State indebtedness and funds and investments: 1870-1913. 203 p. 40c.
- National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1913. 44 p. 10c.
- Taxation and revenue systems of State and local governments: 1913. 275 p. 50c.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

- Agricultural implements—75. 31 p. 10c.
- Automobiles and bicycles and tricycles—66. 37 p. 10c.
- Boots and shoes, leather, and leather gloves and mittens—72. 81 p. 15c.
- Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p. 15c.
- Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p. 10c.
- Carriages and wagons, and steam and street railroad car industry—84. 75 p. 15c.
- Chemicals and allied products—92. 124 p. 20c.
- Copper, lead, and zinc, smelting and refining—86. 32 p. 10c.
- Coke—65. 57 p. 15c.^a
- Electrical machinery, apparatus and supplies—73. 73 p. 20c.
- Glass and clay products—62. 107 p. 15c.
- Iron and steel and tin and terne plate—78. 105 p. 15c.
- Lumber and timber products—77. 69 p. 20c.
- Metal-working machinery—67. 18 p. 10c.
- Musical instruments, attachments, and materials—82. 34 p. 10c.
- Paper and wood pulp—80. 43 p. 10c.^a
- Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p. 10c.
- Petroleum refining—70. 57 p. 15c.
- Power employed in manufactures—88. 27 p. 10c.
- Printing and publishing—79. 133 p. 20c.
- Shipbuilding—81. 29 p. 10c.
- Slaughtering and meat packing, manufactured ice and salt—83. 83 p. 15c.^a
- Textiles—74. 212 p. 30c.^a
- Tobacco—87. 33 p. 10c.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

- United States—57. 93 p. 15c.
- Alabama—43. 23 p. 10c.
- Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p. 10c.
- California, Oregon, and Washington—49. 73 p. 10c.
- Colorado, Idaho, Nevada, and Utah—37. 49 p. 10c.

^a Available only from Superintendent of Documents at price stated.

- Connecticut—42. 39 p. 10c.
 Delaware—31. 15 p. 10c.
 Florida—33. 17 p. 10c.
 Georgia—55. 23 p. 10c.
 Illinois—52. 53 p. 10c.
 Indiana—38. 37 p. 10c.
 Iowa—32. 27 p. 10c.
 Kansas—28. 25 p. 10c.
 Kentucky and Tennessee—47. 45 p. 10c.
 Louisiana, Mississippi, and Texas—48. 57 p. 10c.
 Maine—51. 25 p. 10c.
 Maryland and District of Columbia—27. 33 p. 10c.
 Massachusetts—53. 79 p. 10c.
 Michigan—18. 35 p. 10c.
 Minnesota—46. 27 p. 10c.
 Missouri and Arkansas—35. 47 p. 10c.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p. 10c.
 Nebraska—29. 19 p. 10c.
 New Hampshire and Vermont—41. 35 p. 10c.
 New Jersey—54. 53 p. 10c.
 New York—59. 101 p. 15c.
 North Carolina and South Carolina—39. 37 p. 10c.
 Ohio—58. 61 p. 10c.
 Pennsylvania—60. 81 p. 15c.
 Rhode Island—38. 29 p. 5c.
 Virginia and West Virginia—44. 43 p. 10c.
 Wisconsin—56. 39 p. 10c.

Manufactures, census of 1914—Special industries.

This series of pamphlets will present for about 60 industries the statistics compiled by the Bureau of the Census from the returns of the census of manufactures for 1914. It is expected to complete the series by the end of the year. A list showing the industries for which statistics will be published can be had by addressing the Director of the Census.

Power laundries. 28 p. 5c.

Rice cleaning and polishing. 9 p.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

1. Pulp-wood consumption: 1908, 12 p., 5c.; 1909, 15 p., 5c.; 1910, 10 p., 5c.; 1911, 10 p., 5c.
2. Lumber, lath, and shingles: 1908, 57 p., 10c.; 1909, 63 p., 5c.; 1910, 45 p., 5c.; 1911, 45 p., 5c.;^a 1912, 61 p., 5c.
3. Slack cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1910, 8 p., 5c.; 1911, 8 p., 5c.
- 4.^b Tanbark and tanning extracts: 1907, 10 p., 5c.; 1908, 10 p., 5c.; 1909, 14 p., 5c.

^a Available only from Superintendent of Documents at price stated.

^b This pamphlet was not issued for 1910 and 1911.

4. Excelsior: 1911, 4 p., 5c.
5. Veneers: 1907, 9 p., 5c.; 1908, 13 p., 5c.; 1909, 23 p., 5c.; 1910, 6 p., 5c.; 1911, 8 p., 5c.
6. Tight cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1910, 12 p., 5c.; 1911, 12 p., 5c.
7. Wood distillation: 1907, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 5 p., 5c.; 1911, 6 p.
8. Crossties purchased: 1907, 6 p., 5c.; 1908, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 8 p., 5c.; 1911, 8 p., 5c.
9. Poles purchased: 1907, 8 p., 5c.; 1908, 8 p., 5c.; 1909, 14 p., 5c.; 1910, 7 p., 5c.; 1911, 7 p., 5c.
- 10.^a Forest products of United States: 1907, 122 p., 5c.; 1908, 137 p., 15c.; 1909, 178 p., 15c.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish. The Spanish edition is now exhausted. The titles of the English reports are as follows:

- Vol. I, Geography, history, population. 620 p. \$1.^b
- Vol. II, Population. 1048 p. 75c.^b
- Vol. III, Mortality, defective classes, education, families and dwellings. 740 p. 75c.^b
- Vol. IV, Agriculture, social, and industrial statistics. 638 p. \$1.^b

In addition to the English reports, three bulletins of the following titles, compiled from these reports, in English only, are available:

1. Population of Philippines. 100 p. 10c.
2. Climate of Philippines. 103 p. 10c.^b
3. Volcanoes and seismic centers of Philippine Archipelago. 80 p. 10c.

^a No. 10 is a consolidation, without change, of Nos. 1 to 9.

^b Available only from Superintendent of Documents at price stated.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand in the United States for information regarding Cuba the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

Cuba: Population, history, and resources: 1907 (compendium). 275 p. Cloth, 50c.^a; paper, 35c.^a

Vital statistics.

Extension of registration area for births and deaths, practical example of cooperative census methods as applied to State of Pennsylvania, 1906. 51 p. 10c.^a

Federal registration service of United States: Its development, problems, and defects. 86 p. 7 text fig. 10c.

Index of joint causes of death: 1914. 308 p. 70c.

International classification of causes of sickness and death: 1910. 146 p. 20c.

Legal importance of registration of births and deaths: 1908. 32 p. 5c.^a

Manual and international classification of causes of death: 1902. 177 p. 20c.^a

Manual of international list of causes of death: 1916. 309 p. 65c.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p. 10c.

Physicians' pocket reference to international list of causes of death: 1916. 28 p. 5c.

Practical registration methods: 1908. 29 p. 5c.

Tuberculosis in United States: 1908. 67 p. 15c.

United States life tables, 1910. 65 p. 75c.

MISCELLANEOUS.

Annual report of Director, 1915.^b 29 p.

American census taking. 34 p.

Census Office and coordination of statistics. 43 p. 10c.

Census publications: 1914 (complete descriptive and chronological lists of publications). 91 p.

Collaboration in Federal and State statistical work. 73 p. 5c.

Comparative financial statistics of cities under council and commission government, 1913 and 1915. 15 p. 5c.

Cooperation and unification in Federal and State statistical work. 48 p.

Cotton-ginning reports. [Issued in card form (4 by 6 inches) at intervals during cotton-ginning season.]

Cotton production in United States, crop of 1915. 28 p. 5c.

Federal estimates of population and Federal supervision of local censuses. (Circular 4.) 15 p.

History and growth of United States census: 1790-1890. 967 p. 70c.

Index to occupations, alphabetical and classified. 414 p. 75c.

Leaf tobacco—Report on quantity held by manufacturers and dealers Apr. 1, 1915. 22 p. 5c.

List of census publications: 1914. 91 p.

Official register, 1915. 910 p. \$1.50.^a

^a Available only from Superintendent of Documents at price stated.

^b The Superintendent of Documents can supply copies of annual reports for each year since 1903, with the exception of 1911, 1914, and 1915, at 5 cents each.

- Rank of several States in population, value of crops, etc., census of 1900 and 1910. 2 p. 5c.*
- Special census of population of Hamtramck, Mich., June 25, 1915. 16 p. 5c.
- Same, St. Clair Heights, Mich., Nov. 18, 1915. 4 p.
- Same, Tulsa, Okla., Apr. 15, 1915. 16 p., 1 map. 10c.
- Same, El Paso, Tex., Jan. 15, 1916. 7 p.
- Same, Highland Park, Mich., Nov. 15, 1915. 8 p., 1 text fig.
- Same, Hastings, Nebr., Dec. 13, 1915. 7 p.
- Standard form for reporting financial statistics of public schools: 1911. 28 p.
- Statistical atlas of United States: 1914. 602 p. 503 pl., 99 text fig. \$2.50.
- Summary of State laws relating to care of dependent classes: 1913. 348 p. 40c.
- Table of illiteracy in foreign countries. 4 p. 5c.*
- Tentative program of Bureau of the Census: 1914-1916. 8 p. 5c.
- The story of the census: 1790-1916. 38 p. 10c.
- Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p. 5c.
- Uniform accounts for systems of water supply: 1911. 44 p. 5c.*
- Uniform municipal accounting: 1906. 121 p. 25c.
- Work of Permanent Census Bureau: 1902-1913. 31 p. 5c.

COAST AND GEODETIC SURVEY.

In addition to the annual report of the superintendent, detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of geodesy, topography, hydrography, terrestrial magnetism, the tides, and related subjects, charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications are furnished without charge by the Division of Publications, Department of Commerce, and many of them, and also many of those of which the stock for general distribution is exhausted, may be purchased from the Superintendent of Documents, Government Printing Office, at the prices stated in this list.

For convenient identification future publications and revised editions of former publications of the Survey will have a serial number on the upper left-hand corner of cover and title-page, which should be referred to when copies of a publication bearing a serial number are requested.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in coast line or in depths in channels and harbors, and information relating to terrestrial magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey of the year 1908, inclusive, may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at all depositories of public documents and at many public libraries. For later publications the List of Publications issued by the Department should be consulted.

Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots, Inside

* Available only from Superintendent of Documents at price stated.

Route Pilots, and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes 645 charts on different scales, for general or local use, covering the coast of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and coast-pilot notes relating to Alaska, the Philippine Islands, and Hawaii.

Inside Route Pilots have been published covering the navigable waters from New York to Key West, Key West to New Orleans, and the coast of New Jersey. Similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1914, to June 30, 1915. 156 p. 29 litho.^a [There is also on hand a limited supply of annual reports, 1851 to 1915, except 1857, 1862, 1867, 1870, 1871, 1875, 1877, 1878, 1881, 1883, 1885, 1890, 1892, 1893, 1894 (pt. 1), 1895, 1896, and 1897.^b]

GEODESY.

Longitude between America and Europe from signals through Atlantic cable; by B. A. Gould. Report for 1867, app. 6, p. 57-133.

Observations of eclipse of sun on Aug. 7, 1869, made by parties of Survey at following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under immediate direction of Superintendent of Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts, 3 pl. 16 fig. 1 map, 2 diag.

Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal.; by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig. [Reprinted from Report for 1871, app. 16.^c] 10c.

^a Available only from Superintendent of Documents at price stated.

^b The Superintendent of Documents can supply copies of annual reports for 1851 to 1915, except 1896, at the following prices: 1851, pt. 1, 45c.; 1851, pt. 2, 40c.; 1852, 85c.; 1853, 85c.; 1854, \$1.10; 1855, \$1.15; 1856, \$1.15; 1857, \$1.25; 1858, \$1.10; 1859, \$1.10; 1860, \$1.10; 1861, 90c.; 1862, \$1.15; 1863, \$1; 1864, \$1; 1865, \$1; 1866, 90c.; 1867, 90c.; 1868, 90c.; 1869, 90c.; 1870, 90c.; 1871, 90c.; 1872, 90c.; 1873, 90c.; 1874, \$1; 1875, \$1.20; 1876, \$1.25; 1877, \$1.20; 1878, \$1.20; 1879, \$1.20; 1880, \$1.20; 1881, \$1.20; 1882, \$1.25; 1883, \$1.20; 1884, \$1.20; 1885, \$1.20; 1886, \$1; 1887, \$1.10; 1888, \$1.20; 1889, \$1.75; 1890, \$1.30; 1891, pt. 1, \$1; 1891, pt. 2, 90c.; 1892, pt. 1, 80c.; 1892, pt. 2, 70c.; 1893, pt. 1, \$1.60; 1893, pt. 2, 80c.; 1894, pt. 1, \$1; 1894, pt. 2, \$1.15; 1895, \$1.60; 1897, \$1.70; 1898, \$1.60; 1899, \$1.60; 1900, \$1.90; 1901, \$1.20; 1902, \$1.10; 1903, \$1.35; 1904, \$1.40; 1905, \$1; 1906, \$1.25; 1907, \$1.75; 1908, \$1; 1909, \$1; 1910, \$1.10; 1911, \$1.35; 1912, 25c.; 1912, maps, 35c.; 1913, 75c.; 1914, 40c.; 1915, 55c.

^c Appendixes 16-19 of Report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Allied subjects."

- Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a 10c.
- Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^a 10c.
- Adaptation of triangulations to various conditions, depending on configuration or orographic character of country and on degree of accuracy aimed at, with due consideration of time and means available; also notes on method of observing horizontal angles and directions in geodetic surveys; by Charles A. Schott. Report for 1876, app. 20, p. 391-399, 12 fig. [Reprinted, with additions, from the Report for 1871, app. 15.] 5c.
- Pamlico-Chesapeake arc of meridian and its combination with Nantucket and Peruvian arcs, for determination of figure of earth from American measures; by Charles A. Schott. Report for 1877, app. 6, p. 84-95. 5c.
- Observations of transit of Mercury, May 6, 1878, made at Summit station, Central Pacific R. R.; by B. A. Colonna. Report for 1878, app. 6, p. 81-87, 1 pl. 1 sketch. 5c.
- Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.
- Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag.
- Observations to determine refraction on lines passing near a surface of water, made at different elevations across Potomac River; by Andrew Braid. Report for 1879, app. 16, p. 212-213.
- Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag. 5c.
- Explanation of apparatus for observation of telegraphic longitudes, with directions for its use; by Edwin Smith. Report for 1880, app. 7, p. 93-95, 2 diag.
- Geodesic night signals; by Chas. O. Boutelle. Report for 1880, app. 8, p. 96-109, 1 fig. 1 pl. 1 diag.
- Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag.
- Perfect form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag.
- Meteorological researches: pt. 3, Barometric hypsometry and reduction of barometer to sea level; by William Ferrel. Report for 1881, app. 10, p. 225-268, 1 illus. 5c.^b
- Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358. 5c.
- Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag.
- Measurement of Yolo base, Yolo County, Cal.; by George Davidson. Report for 1882, app. 8, p. 139-149, 1 fig. 1 sketch, 2 diag.
- Total solar eclipse of Jan. 11, 1880, observed at Mount Santa Lucia, Cal.; by George Davidson. Report for 1882, app. 20, p. 463-468, 2 diag.

^a Appendixes 16-19 of Report for 1876, are bound under one cover. Appendix 19 is listed under the heading "Allied subjects."

^b Available only from Superintendent of Documents at price stated.

- New reduction of La Caille's observations, made at Cape of Good Hope and at Paris, 1749-1757, and given in his "Astronomiæ Fundamenta"; together with a comparison of results with Bradley-Bessel "Fundamenta"; also catalogue of places of 150 stars south of declination -30° , for epochs 1750 and 1830. By C. R. Powalky, Ph. D. Report for 1882, app. 21, p. 469-502.
- Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 503-516.
- Results for length of primary base line in Yolo County, Cal., 1881, by party of George Davidson; computation and discussion of results, by Charles A. Schott. Report for 1883, app. 11, p. 273-288, 1 diag. 5c.
- Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.
- Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Eimbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378.
- Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880; by Charles S. Peirce. Report for 1883, app. 19, p. 473-487. 10c.
- Run of micrometer; by George Davidson. Report for 1884, app. 8, p. 377-385. 5c.
- Connection at Lake Ontario of primary triangulation of Coast and Geodetic Survey with that of Lake Survey; observations by Charles O. Boutelle; discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map.
- Results of trigonometrical determination of heights of stations forming Davidson quadrilaterals, Cal.; observations by George Davidson, 1876-1882; discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 fig. 5c.
- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment; by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.
- Determinations of gravity with Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokio, Japan; San Francisco, Cal.; and Washington, D. C.; by Edwin Smith. Report for 1884, app. 14, p. 439-473.
- Use of noddy for measuring amplitude of swaying in pendulum support; by C. S. Peirce. Report for 1884, app. 15, p. 475-482. 5c.
- Note on effect of flexure of pendulum upon its period of oscillation; by C. S. Peirce. Report for 1884, app. 16, p. 483-485. 5c.
- Geographical positions of trigonometrical points in Massachusetts and Rhode Island, determined by Survey, 1835-1885, and including those determined by Borden survey, 1832-1838; by Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps. 10c.
- Results deducted from geodetic connection of Yolo base line with primary triangulation of California, also reduction and adjustment of Davidson quadrilaterals forming part of that triangulation; by Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.
- Note on device for abbreviating time reductions; by C. S. Peirce. Report for 1885, app. 15, p. 503-508. 5c.
- Influence of noddy on period of pendulum; by C. S. Peirce. Report for 1885, app. 16, p. 509-510.*
- Effect of unequal temperature upon reversible pendulum; by C. S. Peirce. Report for 1885, app. 17, p. 511-512.*
- Fluctuations in level of Lake Champlain and average height of its surface above sea—Preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. 5c.
- Heights from spirit levellings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, 1885-86; by Charles A. Schott. Report for 1887, app. 9, p. 185-205. 5c.

* Appendixes 16 and 17 to Report for 1885 are bound together; price, 5 cents.

- Results of spirit leveling of precision about New York Bay and vicinity, 1886 and 1887; observations by John B. Weir and J. E. McGrath; discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map. 5c.
- Geographical positions of trigonometrical points in Connecticut, determined by Survey, 1833-1886—Introduction and explanation of tabular results; by Charles A. Schott. Report for 1888, app. 8, p. 313-403, 1 map.
- Heights from spirit leveling of precision between Mobile, Ala., and Okolona, Miss.; observations by J. B. Weir and J. E. McGrath, 1884, 1886, and 1887; report by Charles A. Schott. Report for 1888, app. 10, p. 409-426. 5c.
- Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's landing, Miss., opposite Arkansas City, Ark.; report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453. 5c.
- Heights from spirit leveling of precision between Arkansas City (on Mississippi River) and Little Rock, Ark.; observations by J. E. McGrath, 1887-88; report by Charles A. Schott. Report for 1888, app. 12, p. 455-464.
- Differential method of computing apparent places of stars for determinations of latitude; by E. D. Preston. Report for 1888, app. 13, p. 465-470. 5c.
- Determinations of latitude and gravity for Hawaiian Government; by E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pl. 5 maps, 5 diag. 25c.
- Same, abstract. Bull. 11, p. 137-142, 1 fig. 8 maps. 1889.*
- Measurement of Los Angeles base line, Los Angeles and Orange counties, Cal.; by George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag.
- Results of spirit leveling between tidewater at Annapolis, Md., and Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins; report by C. A. Schott. Report for 1889, app. 15, p. 461-466. 5c.
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- Approximate times of culminations and elongations and the azimuths at elongation of Polaris for the years between 1889 and 1910. Report for 1891, pt. 2, app. 1, p. 7-13. 5c.
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- Variation of latitude at Rockville, Md., as determined from observations, 1891 and 1892, in cooperation with International Geodetic Association; by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 fig., 2 pl. 2 diag.
- Variation of latitude at Waikiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association; by E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl., 1 fig., 2 maps, 9 diag.
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- Determinations of latitude, gravity, and magnetic elements at stations in Hawaiian Islands, including result for mean density of earth, 1891-92; by E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 8 pl. 12 fig. 2 maps, 6 diag.
- Results of observations for variations of latitude at Waikiki, Hawaii, in cooperation with work of International Geodetic Association; by E. D. Preston. Bull. 27, p. 6-20, 2 diag. 1893. 5c.^a
- Constant of aberration as determined from discussion of results for latitude at Waikiki, Hawaii; by E. D. Preston. Bull. 28, p. 21-34, 1 diag. 1893. 5c.^a
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- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 3, p. 333-344.
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HYDROGRAPHY.

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Notice to mariners.

Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

Type forms of topography, Columbia River; by E. Hergeshelmer. Report for 1881, app. 7, p. 124–125, 7 fig. 1 map.

Proceedings of Topographical Conference. Washington, D. C., Jan. 18–Mar. 7, 1892. Report for 1891, pt. 2, app. 16, p. 565–746, 2 pl. 25 fig. 1 map, 5 diag. 25c.

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- Magnetic observations made during Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730; discussion by C. A. Schott. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report for 1891, pt. 2, app. 5, p. 269-273.

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- Results of magnetic observations at stations in Alaska and in northwest territory of Dominion of Canada; observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, 1889, 1890, and 1891; discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.
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- Boundary line between Pennsylvania and Delaware: pt. 1, Historical account of boundary line; pt. 2, Detailed account of work on boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig. 3 maps, 2 facsimils. 10c.
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- Legal units of electrical measure in United States. Approved Aug. 12, 1894. Bull. 31, p. 105-108.
- General statement of administration and work of Survey, with historical sketch, 1807-1898; by H. S. Pritchett. Extract from report of Superintendent for 1897-98, p. 21-28, 1 sketch.
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- List and catalogue of publications issued by Survey, 1816-1902, with supplement, 1903-1908; by E. L. Burchard and R. M. Brown. 237+44 p.
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* Appendixes 16-19 of report for 1876 are bound under one cover. Appendixes 16-18 are listed under the heading "Geodesy."

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549. Records of dredging and other collecting and hydrographic stations of steamer *Albatross* in 1903; by Franklin Swift, compiled by Harry C. Fassett. Report for 1903, p. 123-138.
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551. List of fishes dredged by steamer *Albatross* off coast of Japan in summer of 1900, with descriptions of new species and review of Japanese Macrouridae; by David Starr Jordan and Edward Chapin Starks. Bull., vol. 22, 1902, p. 577-630, 8 pl. 52 text fig. 20c.
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614. List of publications of Bureau of Fisheries available for distribution. May 26, 1916. 23 p.
616. Study of Twin Lakes, Colo., with especial consideration of food of trouts; by Chancey Juday. Bull., vol. 26, 1906, p. 147-178, 1 pl. 6 text fig. 15c.^a
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814. Ecological reconnaissance of fishes of Douglas Lake, Cheboygan County, Mich., in midsummer; by Jacob Reighard. Bull., vol. 33, 1913, p. 215-249, 4 text fig. 10c.
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820. Fur seals and other life of Pribilof Islands, Alaska, in 1914; by Wilfred H. Osgood, Edward A. Preble, and George H. Parker. Bull., vol. 34, 1914, p. 1-172, 18 pl. 24 maps.
821. Changes in shade, color, and pattern in fishes, and their bearing on problems of adaptation and behavior, with especial reference to flounders *Paralichthys* and *Ancyloperca*; by S. O. Mast. Bull., vol. 34, 1914, p. 173-238, 19 pl. 3 text fig. 40c.
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834. Alaska fisheries and fur industries in 1915. In press.
838. Survey of fishing grounds on coasts of Washington and Oregon in 1915; by Edward C. Johnston. Appendix 4 to Report of Commissioner for 1916, 22 p. 4 charts.

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272. Oyster industry of the South Atlantic States, 1910.
273. Oyster industry of the Gulf States, 1911.
286. Oyster industry of Maryland and Virginia, 1912.
289. Oyster industry of the Pacific Coast States, 1912.
295. Menhaden industry of the Atlantic Coast States in 1912.
305. Fresh-water mussel fishery of streams tributary to the Gulf of Mexico from the Ohio River southward in 1912.
307. Fresh-water pearl-button industry of the United States in 1912.
314. Fresh-water mussel fishery of streams tributary to the Great Lakes and the Ohio and Mississippi Rivers north of the Ohio and east of the Mississippi River in 1913.
336. Crab industry of Maryland and Virginia, 1915.
339. Shad and alewife industry of Chesapeake Bay and tributaries, 1915.
341. Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the year 1915.
342. Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the calendar year 1915.
343. Fresh-water mussel fishery of the Mississippi River and its western tributaries from Kansas northward in 1914.
355. Coastal fisheries of New York and New Jersey, by counties, exclusive of shellfish, 1915, and shad fishery of Hudson River, 1915 and 1916.

MISCELLANEOUS.

Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 1, Physical and zoological; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 2, Botanical; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 1, 544 p. 1 chart, 3 maps, 270 text fig. 90c.

Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 3, Catalogue of marine fauna; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 4, Catalogue of the marine flora; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 2, 318 p. 65c.

Alaska investigations in 1914; by E. Lester Jones. Dec. 31, 1914. 155 p. 208 text fig. 50c.^a

Bureau of fisheries and its station at Woods Hole, Mass. 11 p. 3 text fig. 1915. 5c.

Bureau of fisheries and its biological station at Beaufort, N. C. 11 p. 6 text fig. 1916. 5c.

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Statistical Record of the Progress of the United States, and Monetary, Commercial, and Financial Statistics of Principal Countries. (An advance print of certain tables from Statistical Abstract of the United States.) (Annual.) 10c.

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Same, fiscal years 1876, 1877, 1879, 1880, 1885, 1886, 1888, 1889, 1891, 1893, 1894, 1898, 1905, 1907, 1910, 1914, and 1915. 1 vol. 973 p.^a

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TECHNOLOGIC PAPERS.

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CIRCULARS.

2. Measurements of length and area, including thermal expansion. 5th ed. Apr. 30, 1915. 21 p. 5c.
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6. Fees for electric, magnetic, and photometric testing. 6th ed. Oct. 1, 1914. 27 p. 10c.*
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24. Publications of Bureau of Standards. 4th ed. July 1, 1913. [Contains list of technical papers and descriptive list of papers classified by subjects, with brief abstracts of each title.] 54 p. [Also Supplements 1, 2, 3, and 4, bringing the list up to Sept. 15, 1916.] 10c.
25. Standard analyzed samples. General information. 5th ed. Sept. 1, 1913. 12 p. [Also Insert. 4 p.] 5c.*
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47. Units of weight and measure; definitions and tables of equivalents. July 1, 1914. 68 p. 15c. [Supersedes miscellaneous publication, "Tables of equivalents of United States customary and metric weights and measures."]
48. Standard methods of gas testing. 2d ed. June 10, 1916. 202 p. 1 pl. 15 text fig. 40c.
49. Safety rules to be observed in operation of electrical equipment and lines. (Part 4 of Proposed national electrical safety code.) 2d ed. May 4, 1915. 50 p. 10c.
50. National standard hose couplings and fittings for public fire service. Nov. 25, 1914. 23 p. 1 pl. 4 text fig. 10c.
51. Measurement of time and tests of timepieces. Dec. 1, 1914. 39 p. 1 pl. 7 text fig. 15c.
52. Regulation of electrotyping solutions. 2d ed. June 28, 1916. 44 p. 1 text fig. 10c.
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54. Proposed national electrical safety code. 2d ed. In press.
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57. United States standard tables for petroleum oils. Jan. 29, 1916. 64 p. 2 text fig. 15c.
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60. Electric units and standards. Sept. 25, 1916. 68 p. 15c.
61. Specifications and tolerances for weights and measures and weighing and measuring devices. In press.

MISCELLANEOUS.

Annual report of Director, 1915. 148 p. [There are also available copies of annual reports for 1903, 1904, 1906, 1907, 1908, 1912, 1913, and 1914.]^b

International metric system. (Chart.)

International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.

First conference on weights and measures of United States. Jan. 16, 17, 1905. 46 p. 10c.

Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.

Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.

Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.

Fifth annual conference on weights and measures of United States. Feb. 25, 26, 1910. 123 p. 15c.

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^b Copies of the annual reports of the Director may be obtained from the Superintendent of Documents as follows: 1905, 5c.; 1906, 10c.; 1909, 5c.; 1911, 5c.; 1912, 5c.; 1914, 10c..

- Sixth annual conference on weights and measures of United States. Feb. 17, 18, 1911. 158 p. 1 text fig. 20c.
- Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.
- Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.^a
- Ninth annual conference on weights and measures of United States. May 26-29, 1914. 176 p. 1 pl. 8 text fig. 20c.
- Tenth annual conference on weights and measures of United States. May 25-28, 1915. 254 p. 1 paster, 18 text fig. 50c.
- National Bureau of Standards. Description of work of Bureau. 24 p.
- Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan. 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]
- Tolerances and specifications for weights and measures and weighing and measuring devices. 29 p. 2 text fig.

STEAMBOAT-INSPECTION SERVICE.

Two regular publications are issued by the Steamboat-Inspection Service, as follows:

Report of the Supervising Inspector General. (Annual.)

List of Officers of Merchant Steam, Motor, and Sail Vessels Licensed During the Fiscal Year Ending June 30 for a Period of Five Years. (Annual.)

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors, heretofore published in one volume, are now published as four separate pamphlets, according to the kinds of waters covered by the rules, as follows: (1) Ocean and coastwise; (2) Great Lakes; (3) Lakes other than the Great Lakes, bays, and sounds; and (4) rivers.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest available editions of the publications are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General. 1915. 53 p. [There are also available copies of annual reports for 1911, 1912, and 1914.]^b

List of officers of merchant steam, motor, and sail vessels licensed during year ended June 30, 1915, for period of five years. 220 p. 15c.

Laws governing Steamboat-Inspection Service. Ed. Nov. 4, 1915. 87 p.

General rules and regulations prescribed by Board of Supervising Inspectors, as amended Jan., 1916. Ed. May 13, 1916:

Ocean and coastwise. 192 p. 8 text fig.

Great Lakes. 154 p. 6 text fig.

Lakes other than Great Lakes, bays, and sounds. 150 p. 6 text fig.

Rivers. 144 p. 6 text fig.

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Rule III, ocean and coastwise, and lakes, bays, and sounds, [from] General rules and regulations prescribed by Board of Supervising Inspectors. Ed. Nov. 4, 1915. 71 p. 1 text fig.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. Sept. 1, 1914. 34 p. 5 text fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.



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This pamphlet, which contains a complete list of the publications of the Department available either for free distribution by the Department or by purchase from the Superintendent of Documents, revised and corrected to date of issue, is published twice each year. There is also published each month a list of the publications issued by the Department during that month. Persons desiring to have their names placed on the mailing list to receive copies of either the complete list or the monthly list should address the "Chief, Division of Publications, Department of Commerce, Washington, D. C."

The free distribution of many of the publications of the Department is confined to libraries, educational institutions, the press, and commercial organizations. Others may procure them, at prices stated herein, from the "Superintendent of Documents, Government Printing Office, Washington, D. C.," to whom remittances should be sent direct, as his office is not a part of the Department of Commerce. For the convenience of the general public, coupons that are good until used in exchange for Government publications sold by the Superintendent of Documents may be purchased from his office in sets of 20 for \$1. Remittances should be made by coupons, postal money order, express order, or New York draft. Currency may be sent at sender's risk. Postage stamps, defaced or smooth coins, or foreign money positively will not be accepted. The use of an asterisk (*) in this pamphlet indicates that the Department's supply of the publication is entirely exhausted and that copies are available only from the Superintendent of Documents and at the price stated.

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for free copies of publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for free copies of other publications given in this list should be addressed to the bureaus in which the publications originate. Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Coast and Geodetic Survey. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address and stating specifically the publication or publications received by them. The Department should also be notified promptly when publications are no longer desired.

DAN C. VAUGHAN,
Chief, Division of Publications.

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PUBLICATIONS OF THE DEPARTMENT OF COMMERCE AVAILABLE FOR DISTRIBUTION.

EDITION MAY 8, 1917.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1916. 259 p. 11 pl. 1 chart, 4 text fig. [There is also on hand limited supply of Secretary's report for each of years 1903 to 1905 and 1907 to 1915, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated], 1916. 1,064 p. 2 charts, 1 pl. 10 p. of pl. 4 text fig. [There is also on hand limited supply of consolidated reports of Department for each of years 1904, 1905, 1909, and 1911 to 1915, inclusive.]

Annual report of Chief of Appointment Division, 1916. 24 p. [There are also available copies of each annual report from 1910 to 1914, inclusive.]

Annual report of Chief of Division of Publications, 1916. 36 p. [There are also available copies of each annual report from 1907 to 1915, inclusive.]

Department of Commerce: Origin and organization, 1915. 71 p.

Condensed history, duties, and practical operation of Department and its several bureaus and offices, together with laws relating specifically thereto. July 1, 1913. 211 p.

Circulars of Department in effect July 1, 1917. In press.

List of publications of Department available for distribution. 15th ed. May 8, 1917. 77 p.

List of publications issued by Department. 4 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

Standardization in construction of freight ships; by E. Platt Stratton. May, 1916. 16 p. 2 text fig. 5c.

Advisory conference on subject of making passenger vessels more secure from destruction by fire. May 3, 1916. 63 p.

Proceedings of conference on automatic sprinklers on vessels. May 22, 1916. 34 p. 2 text fig.

Establishment of load-line regulations. Proceedings of conference held at office of Secretary of Commerce, Sept. 27, 1916. 54 p.

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6, 1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also

publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are supplied to applicants without expense so long as the editions allowed for free distribution will permit, and can also be purchased at prices stated in this list from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1880) REPORTS.

- *Agriculture (including cereal production; flour-milling processes; tobacco; meat production). 1149 p. \$1.50.
- *Compendium of Tenth Census of United States, 1880. 1,845 p. \$1.10.
- revised edition, pt. 1, 1885. 1,040 p. 65c.
- revised edition, pt. 2, 1888. 858 p. 55c.
- Cotton production: pt. 1, Mississippi Valley and Southwestern States. 924 p. \$1.30.
- pt. 2, Eastern Gulf, Atlantic, and Pacific States. 848 p. \$1.30.
- Defective, dependent, and delinquent classes of population (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p. 75c.
- *Forests of North America, 1884. 622 p. \$1.25.
- *History and present condition of fishery industries. 25c.
- *Manufactures (including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass). 1,248 p. \$1.50.
- *Mining industries (exclusive of precious metals). 1,064 p. \$2.
- Mining laws and regulations: United States, State, Territorial, and local. 716 p. \$1.10.
- *Mortality and vital statistics: pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p. \$1.20.^a
- pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p. \$1.60.^a
- *Plates and diagrams accompanying part 2 of report on mortality and vital statistics, 1886. 65c.
- *Newspaper and periodical press; Alaska; seal islands; shipbuilding. 1,122 p. \$1.60.
- *Petroleum, coke, and building stones. 872 p. \$1.75.
- *Population: By States, counties, and minor civil divisions, with distinction of race, sex, age, nativity, and occupations, together with summary tables relating to newspapers and periodicals; public schools; illiteracy; the dependent, defective, and delinquent classes. 1,054 p. \$1.50.
- *Power and machinery employed in manufactures, and ice industry of United States. 666 p. 85c.
- *Precious metals, statistics and technology of. 558 p. \$1.
- *Social statistics of cities: pt. 1, New England and Middle States. (Includes streets, street railways, public buildings and works, sanitation, government schools, and commerce and industry.) 924 p. \$1.50.
- pt. 2, Southern and Western States, 1880. 850 p. \$1.35.
- *Transportation agencies in United States. 870 p. \$1.25.
- *Valuation, taxation, and public indebtedness. 920 p. \$1.35.

^a * Available only from Superintendent of Documents and at price stated. See note on page 2.
^a The Superintendent of Documents can supply pts. 1 and 2 in sets at \$2.25 per set.

- *Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts. 792 p. \$1.10.
- *Water power of United States, 1885: pt. 1. 874 p. \$1.25.
- *—— 1887: pt. 2. 788 p. \$1.

ELEVENTH CENSUS (1890) REPORTS.

- *Abstract. 312 p. 25c.
- *Agriculture by irrigation. 946 p. \$1.50.
- *Agriculture by irrigation. 336 p. 80c.
- *Alaska, population and resources of. 294 p. \$1.15.
- *Annual report of Superintendent of the Census, 1889, 5c.; 1890, 5c.; 1895, 5c.; 1896, 5c.; 1897, 5c.
- Churches. 840 p. \$1.10.
- *Compendium: pt. 1, Population; dwellings and families; Alaska. 1,098 p. \$1.15.
- *—— pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1,070 p. \$1.10.
- *—— pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians taxed and not taxed. 1,158 p. \$1.05.
- *Crime, pauperism, and benevolence in United States: pt. 1, Analysis. 420 p. 70c.
- *—— pt. 2, General tables. 1,048 p. \$1.
- Education. 149 p.
- *Farms and homes, proprietorship, and indebtedness in United States, 1896. 658 p. \$1.10.
- *Indians taxed and not taxed. 692 p. \$2.35.
- *Insane, feeble-minded, deaf and dumb, and blind. 768 p. \$1.10.
- *Insurance business: pt. 1, Fire, marine, and inland insurance. 1,138 p. \$1.
- *—— pt. 2, Life insurance. 490 p. 70c.
- *Manufacturing industries in United States: pt. 1, Totals for States and industries. 1,002 p. \$1.
- *—— pt. 2, Statistics of cities. 827 p. 95c.
- *—— pt. 3, Selected industries. 733 p. 85c.
- *Mineral industries. 874 p. \$1.50.
- *Occupations of population of United States. (Preliminary report.) 127 p. 15c.
- *Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; foreign parentage; conjugal condition; school, militia, and voting ages; dwellings and families; Indians; Alaska. 1,181 p. \$1.35.
- *—— pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1,140 p. \$1.10.
- *Population of United States by minor civil divisions as returned at Eleventh Census, June 1, 1890. 60c.
- Real estate mortgages. 956 p. \$1.15.
- *Social statistics of cities in United States. 146 p. 50c.
- *Statistical atlas of United States based upon results of Eleventh Census. 70 p. 63 pl. \$4.
- Textiles. 240 p.
- *Transportation business in United States: pt. 1, Transportation by land. 875 p. 95c.
- *—— pt. 2, Transportation by water. 532 p. 70c.
- *Vital and social statistics: pt. 1, Analysis and rate tables. 1,077 p. \$1.40.
- *—— pt. 2, Cities of 100,000 population and upward. 1,191 p. \$1.35.
- *—— pt. 3, Statistics of deaths. 1,057 p. \$1.
- *—— pt. 4, Statistics of deaths. 1,039 p. \$1.

- *Vital statistics covering period of six years ended May 3, 1890; Boston and Philadelphia. 278 p. 75c.
- *—— District of Columbia and Baltimore. 250 p. 75c.
- *—— New York and Brooklyn. 538 p. \$1.
- *Wealth, debt, and taxation: pt. 1, Public debt. 902 p. \$1.20.
- *—— pt. 2, Valuation and taxation. 662 p. 80c.

TWELFTH CENSUS (1900) REPORTS.

- Abstract. 470 p. 30c.
- Agriculture: pt. 1, Farms, live stock, and animal products. 1,003 p. \$2.
- *—— pt. 2, Crops and irrigation. 880 p. \$2.
- *Annual report of Director of the Census, 1899, 5 p., 5c.; 1900, 21 p., 5c.; 1901, 14 p., 5c.
- *Employees and wages, 1900. 289 p. \$2.
- *Manufactures: pt. 1, United States by industries. 1,039 p. \$2.
- *—— pt. 2, By States and Territories. 1,111 p. \$2.
- *—— pt. 3, Selected industries, including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleomargarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1,143 p. \$2.
- *—— pt. 4, Selected industries, including iron and steel; tin and terne plate; lead, copper, and zinc smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p. \$2.
- Manufactures—Textiles (monograph). 258 p. 50c.
- *Occupations at Twelfth Census. 1,029 p. \$2.
- *Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in United States. 1,236 p. \$2.
- *—— pt. 2, Ages, in detail; school, militia, and voting ages; conjugal condition; school attendance; illiteracy; inability to speak English; occupations; dwellings and families; proprietorship of homes. 978 p. \$2.
- *Population of United States by States and Territories, counties, and minor civil divisions. [From Twelfth Census, 1900, vol. 1, Population, pt. 1.] 480 p. 50c.
- *Statistical atlas, 1900. 298 p. 207 pl. 91 text fig. \$4.
- Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1162 p. \$2.
- *Vital statistics: pt. 1, Analysis and ratio tables. 1,009 p. \$2.
- *—— pt. 2, Statistics of deaths. 1,061 p. \$2.
- *Wealth, debt, and taxation—Abstract. 31 p. 10c.
- Women at work, 1900. 399 p. 85c.

THIRTEENTH CENSUS (1910) REPORTS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the

mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

- *Population: vol. 1, General report and analysis. 1,369 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Number of inhabitants; 104 p. 2. Color or race, nativity, and parentage; 122 p. 3. Sex distribution; 42 p. 4. Age distribution; 218 p. 5. Marital condition; 182 p. 6. State of birth; 92 p. 7. Country of birth; 94 p. 8. Foreign white stock; 84 p. 9. Mother tongue; 58 p. 10. Year of immigration; 16 p. 11. Voting and militia ages; 64 p. 12. School attendance; 88 p. 13. Illiteracy; 80 p. 14. Inability to speak English; 20 p. 15. Dwellings and families; 8 p. 16. Ownership of homes; 74 p.] \$1.60.
- *—— vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1,160 p. \$1.50.
- vol. 3, Same—Nebraska to Wyoming, Alaska, Hawaii, and Porto Rico. 1,225 p. \$1.50.
- *—— vol. 4, Occupation statistics. 615 p. [The following tables from this volume have been reprinted as separates: 3. Occupation statistics, cities of 100,000 and over; 57 p. 4. Occupation statistics, cities of 25,000 and over; 85 p. 5 and 9. Occupation statistics, Alaska, Hawaii, and Porto Rico; 19 p.] \$1.
- *Agriculture: vol. 5, General report and analysis. 927 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 88 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 146 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.] \$1.40.
- vol. 6, Reports by States, with statistics for counties—Alabama to Montana. 977 p. \$1.25.
- vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1,013 p. \$1.35.
- *Manufactures: vol. 8, General report and analysis. 845 p. [The following portions of this volume have been reprinted as separates: Tables 5 and 6. Comparative summary, principal industries, by States, 1909, 1904, and 1899; establishments, persons engaged, power, capital, expenses, and value of products; industries, by States, 1909; 245 p. Chap. 15 and Table 1. Description of individual industries with principal statistics for each; 145 p.] \$1.10.
- vol. 9, Reports by States, with statistics for principal cities. 1,404 p. \$1.65.
- vol. 10, Reports for principal industries. 975 p. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motorcycles, and parts; 6 p. Blast furnace, steelworks and rolling mill, wire, and tinplate and terneplate industries; 80 p.^a Boots and shoes, including cut stock and findings; 20 p.^a Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products; general chemical industry; bone, carbon, and lampblack; dyestuffs and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p.^a

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a Out of print.

Flour-mill and gristmill products; 24 p.^a Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 19 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 19 p.^a Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p.^a Paper and wood pulp; 16 p.^a Petroleum refining; 10 p.^a Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 19 p. Silk manufactures [also included in Textiles]; 25 p. Slaughtering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p.^a Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 18 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p. \$1.25.

Mining: vol. 11, Mines and quarries. 369 p. 65c. [The following sections of this volume have been printed as separates: Coal, 55 p.; Iron mines, 25 p.]

Abstract of the Census with State supplements.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries).

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:
Introduction:

Population: 1. Number and distribution of inhabitants. 2. Color or race; nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native population. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries. \$1.

State supplements.

These supplements vary in size from 37 pages (District of Columbia) to 225 pages (New York).

Alabama, 20c.; Alaska, 10c.; Connecticut, 20c.; District of Columbia, 10c.; Georgia, 25c.; Hawaii, 10c.; Idaho, 15c.; Illinois, 30c.; Indiana, 25c.; Iowa, 25c.; Kansas, 25c.; Kentucky, 25c.; Louisiana, 20c.; Maine, 15c.; Maryland, 15c.; Massachusetts, 20c.; Michigan, 25c.; Minnesota, 25c.; Mississippi, 15c.; Missouri, 25c.; Montana, 20c.; Nebraska, 20c.; Nevada, 15c.; New Hampshire, 15c.; New Jersey, 20c.; New Mexico, 15c.; New York, 35c.; North Carolina, 20c.; North Dakota, 15c.; Ohio, 30c.; Oklahoma, 20c.; Oregon, 20c.; Pennsylvania, 30c.; Porto Rico, 15c.; Rhode Island, 15c.; South Carolina, 15c.; Tennessee, 20c.; Texas, 40c.; Utah, 15c.; Vermont, 15c.; Virginia, 25c.; Washington, 20c.; West Virginia, 15c.; Wisconsin, 20c.; and Wyoming, 15c.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States, and where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p. Color or race, nativity, parentage, sex, and males of voting and militia ages [reprint of chap. 2 of Abstract]; 43 p. 5c. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. 5c. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. 5c. Country of origin of population of foreign birth and parentage and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. 5c. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p. 5c. Agriculture: Farms and farm property; 20 p. 5c. General farm crops; 28 p. Live stock on farms and elsewhere; 34 p. 5c. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. 5c. Crops; 59 p. 10c. Live-stock products, and domestic animals sold or slaughtered on farms; 16 p. 5c. Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p. 5c. Manufactures: Manufactures, by States, cities, and industries; 96 p. 10c. Mines: Statistics of mining, for industries and States; 24 p. 5c.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

Center of population and median lines, continental United States. 8 p. 5c.
Cities and their suburbs. 6 p.
*Iron mines. 25 p. 5c.
*Irrigation: Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas. 28 p. 5c.
Occupation statistics [summary of vol. 4 of final reports]. 107 p. 20c.
Population of cities of 2,500 inhabitants and over. 46 p.
Population of counties and equivalent subdivisions. 30 p. 5c.
Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p. 65c.
Population of incorporated places. 111 p. 15c.
*Statistics of manufactures for metropolitan districts, 1909. 77 p. 15c.
Total population and area of the United States, by States and Territories. 16 p. 5c.

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

Age of farmers, by color of operator, character of tenure, and size of farm. 35 p. 10c.

Chinese and Japanese in the United States. 50 p. 15c.

Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.] 5c.

Population of New York City, by enumeration districts. 23 p. 5c.

Stability of farm operators, or term of occupancy of farms. 22 p. 5c.

Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p. 5c.

INTERCENSAL REPORTS (1900-1916).

[See also publications listed under various headings, pp. 13 to 12.]

Benevolent institutions: 1904, 335 p., 50c.; 1910, 411 p., 75c.

Blind and deaf: 1900. 274 p. 60c.

Blind population of United States: 1910. 342 p. 75c.

*Central electric light and power stations: 1902, 185 p., 50c.; 1907, 198 p., 50c.

Central electric light and power stations and street and electric railways: 1912 440 p. \$1.

Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p. \$1.10.

Electrical industries: 1902. 822 p. \$1.65.

Express business in United States: 1907. 28 p. 10c.

Financial statistics of cities having population of over 30,000: 1905, 372 p., 50c.; 1906, 358 p., cloth, 85c., paper, 50c.; 1907, 548 p., cloth, 85c., paper, 65c.* 1908, 354 p., cloth, 75c.* 1909, 279 p., 55c.; 1910, 308 p., 60c.; 1911, 401 p., 75c.; 1912, 410 p., 75c.* 1915, 338 p.; 1916, in press.

Financial statistics of States: 1915, 125 p., 75 c.; 1916, in press.

Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p. 70c.

General statistics of cities having population of over 30,000: 1909, pt. 1; Sewers and sewer service; pt. 2, Refuse disposal service; pt. 3, Street-cleaning service; pt. 4, Dust-prevention service; pt. 5, Highways and general highway service; pt. 6, Statistics of salaries and wages. 197 p. 45c.

— 1915, pt. 1, Governmental organizations; pt. 2, Police departments; pt. 3, Liquor traffic; pt. 4, Municipally owned water-supply systems and water rates. 185 p. 55c.

— 1916, pt. 1, Parks; pt. 2, Playgrounds; pt. 3, Museums and art galleries; pt. 4, Zoological collections; pt. 5, Music and entertainments; pt. 6, Swimming pools and bathing beaches; pt. 7, Other features of the recreation service. In press.

Indians in United States and Alaska: 1910. 285 p. 65c.

Insane and feeble-minded in institutions: 1904, 238 p., cloth, 60c.; paper, 25c.; 1910, 217 p., 55c.

Manufactures: 1905, pt. 1, United States by industries. 1,030 p. \$1.35.

*— pt. 2, States and Territories. 1,244 p. \$1.50.

*— pt. 3, Selected industries. 968 p. \$1.30.

*— pt. 4, Selected industries. 856 p. \$1.75.

Marriage and divorce: 1867-1906, pt. 1, 535 p., \$1; pt. 2, General tables, 850 p., \$1.50.

Mines and quarries: 1902. 1153 p. \$1.50.

Mortality: 1900-1904, 1,003 p., \$1.25; 1905, 360 p., \$1; 1906, 486 p., 80c.; 1907, 538 p., \$1.25; 1908, 706 p., \$1.10;* 1909, 870 p., \$1.25; 1910, 611 p., 90c.* 1911, 572 p., \$1; 1912, 382 p., 75c.; 1913, 631 p., 90c.* 1914, 714 p., \$1; 1915, 707 p.

Paupers in almshouses: 1904, 216 p., cloth, 60c.; paper, 25c.; 1910, 141 p., 50c.

Plantation farming in United States. 22 p. 10c.

*Prisoners and juvenile delinquents, 1904. 295 p. 40c.

Religious bodies: 1906, pt. 1, Summary and general tables, 576 p., \$1; pt. 2, Separate denominations: History, description, and statistics, 670 p., \$1.

*Street and electric railways, 1902, 452 p., 75c.; 1907, 576 p., \$1.10.

Telephones and telegraphs: 1902. 184 p. Cloth, 75c.

Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p., 55c.

- Telephones and telegraphs and municipal electric fire-alarm and police-patrol signaling systems: 1912. 208 p. 50c.
 Transportation by water: 1906. 240 p. 90c.
 *Wealth, debt, and taxation, 1900-1904. 1,246 p. \$2.
 ——— 1913, vol. 1, 886 p., \$1.25; vol. 2, 756 p., \$1.

INTERCENSAL BULLETINS (1900-1916).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects. Miscellaneous unnumbered bulletins and pamphlets issued by the Bureau of the Census are listed on pages 18-19.

Miscellaneous.

- Age statistics, discussion: 1880, 1890, 1900-13. 53 p. 10c.
 Blind population of United States: 1910-130. 52 p. 15c.
 Central electric light and power stations and street and electric railways: 1912-124. 113 p. 25c.
 *Child labor in District of Columbia: Twelfth Census, 1900-68. 21 p. 10c.
 *Child labor in United States: Twelfth Census, 1900-69. 200 p. 25c.
 Chinese and Japanese in United States: 1910-127. 50 p. 15c.
 Commercial valuation of railway operating property in United States: 1904-21. 88 p. 10c.
 Cotton ginned in United States: Crops of 1899 to 1902, inclusive-2, 46 p., 5c.; 1899 to 1903-10, 10c.; * 1900 to 1904-19, 10c.*
 Cotton production: 1905-40, 72 p., 10c.; 1906-76, 68 p., 10c.; 1907-95, 58 p., 15c.; 1908-100, 63 p., 15c.; 1909-107, 64 p., 10c.; 1910-111, 66 p., 15c.; 1911-114, 61 p., 10c.; 1912-116, 63 p., 10c.; 1913-125, 79 p., 15c.
 Cotton production and distribution: 1914-15-131, 102 p., 10c.; 1915-16-134, 99 p., 20c.
 Cotton supply and distribution for year ended Aug. 31, 1905-25, 15 p., 5c.; 1906-63, 25 p., 10c.; 1907-90, 26 p., 10c.; 1908-97, 40 p., 15c.; 1909-106, 32 p., 10c.; 1910-110, 32 p., 5c.; 1911-113, 31 p., 10c.; 1912-115, 31 p., 10c.; 1913-117, 40 p., 10c.; 1914-128, 30 p., 10c.
 Deaf and dumb population of United States: 1910. 8 p. 5c.
 *Discussion of increase of population: 1903-4. 63 p. 10c.
 Earnings of wage earners (a study based on census of manufactures, 1905)-93. 179 p. 25c.
 Electrical industries of Porto Rico: 1907-99. 29 p. 10c.
 *Estimates of population: 1904, 1905, 1906-71, 28 p., 10c.; 1910-1914-122, 24 p., 5c.
 Estimates of population of larger cities of United States in 1901-1903-7. 21 p. 10c.
 Estimates of population of United States, 1910-1916, including results of State enumerations made in 1915-133. 46 p.
 Executive civil service of United States, statistics of employees: 1904-12, 239 p., 25c.; 1907-94, 164 p., 20c.
 Financial statistics of cities having population of 8,000 to 25,000: 1903-45. 231 p. 25c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

• The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

- Financial statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p. 40c.
- Financial statistics of cities having population of over 30,000: 1904—50, 209 p., 25c.; 1907 (abstract of annual report)—105, 94 p., 15c.; 1912—118, 83 p., 15c.; 1913—126, 73 p., 15c.; 1915—132, 117 p., 25c.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p. 5c.
- Illiteracy in United States (study based on reports of Twelfth and preceding Censuses)—26. 54 p. 10c.
- Increase of population: 1890 to 1900, discussion of—4. 63 p. 10c.
- Industrial districts: 1905. Manufactures and population—101. 81 p. 15c.
- Insane and feeble-minded in institutions: 1910—119. 99 p. 20c.
- Insular and municipal finances in Porto Rico for fiscal year 1902—3—24. 31 p. 5c.
- *Irrigation in United States: 1902—16. 92 p. 10c.
- Marriage and divorce: 1887—1906—96. 71 p. 15c.
- Mineral industries of Porto Rico: 1902—6. 18 p. 15c.
- Mines and quarries: 1902—9. 59 p. 10c.
- Mortality statistics: 1908—104, 133 p., 20c.; 1909—108, 138 p., 20c.;* 1910—109, 191 p., 30c.; 1911—112, 142 p., 25c.*
- Municipal electric fire-alarm and police-patrol systems: 1902—11. 33 p. 10c.
- Negroes in the United States: 1910—129. 207 p. 35c.
- Paupers in almshouses: 1910—120. 99 p. 20c.
- Population of Oklahoma and Indian Territory: 1907—89. 43 p. 15c.
- Prisoners and juvenile delinquents: 1910—121. 130 p. 15c.
- Proportion of children in United States (study based on reports of Twelfth and preceding Censuses)—22. 27 p. 5c.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding Censuses)—14. 51 p. 10c.
- Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p. 20c.
- *Street and electric railways, 1912—3. 193 p. 5c.
- Supervisors districts for Thirteenth Census: 1910—98. 19 p. 15c.
- Teachers, statistics (study based on reports of Twelfth and preceding Censuses)—23. 20 p. 5c.
- Telegraph systems: 1907—102. 47 p. 25c.
- Telephones and telegraphs: 1902—17, 49 p., 10c.; 1912—123, 26 p., 10c.
- Transportation by water: 1906. United States—91. 57 p. 10c.
- Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p. 10c.

Wealth, debt, and taxation.

- The statistics presented in these bulletins are reproduced in Volumes I and II of the report on Wealth, Debt, and Taxation: 1913.
- Abstract of special bulletins: 1913. 63 p. 10c.
- Assessed valuation of property and amounts and rates of levy: 1860—1912. 176 p. 35c.
- County and municipal indebtedness: 1913, 1902, and 1890; and sinking-fund assets, 1913. 228 p. 25c.
- County revenues, expenditures, and public properties: 1913. 338 p. 50c.
- Estimated valuation of national wealth: 1850—1912. 20 p. 10c.
- *Municipal revenues, expenditures, and public properties: 1913. 378 p. 70c.
- National and State indebtedness and funds and investments: 1870—1913. 203 p. 40c.
- National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1913. 44 p. 10c.
- †Taxation and revenue systems of State and local governments: 1913. 275 p. 50c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

- Agricultural implements—75. 31 p. 10c.
- Automobiles and bicycles and tricycles—66. 37 p. 10c.
- Boots and shoes, leather, and leather gloves and mittens—72. 81 p. 15c.
- Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p. 15c.
- Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p. 10c.
- Carriages and wagons and steam and street railroad car industry—84. 75 p. 15c.
- Chemicals and allied products—92. 124 p. 20c.
- Copper, lead, and zinc, smelting and refining—86. 32 p. 10c.
- *Coke—65. 57 p. 15c.
- Electrical machinery, apparatus and supplies—73. 73 p. 20c.
- Glass and clay products—62. 107 p. 15c.
- Iron and steel and tin and terne plate—78. 105 p. 15c.
- Lumber and timber products—77. 69 p. 20c.
- Metal-working machinery—67. 18 p. 10c.
- Musical instruments, attachments, and materials—82. 34 p. 10c.
- *Paper and wood pulp—80. 43 p. 10c.
- Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p. 10c.
- Petroleum refining—70. 57 p. 15c.
- Power employed in manufactures—88. 27 p. 10c.
- Printing and publishing—79. 133 p. 20c.
- Shipbuilding—81. 29 p. 10c.
- *Slaughtering and meat packing, manufactured ice and salt—83. 83 p. 15c.
- *Textiles—74. 212 p. 30c.
- Tobacco—87. 33 p. 10c.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

- *United States—57. 93 p. 15c.
- Alabama—43. 23 p. 10c.
- Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p. 10c.
- California, Oregon, and Washington—49. 73 p. 10c.
- Colorado, Idaho, Nevada, and Utah—37. 49 p. 10c.
- Connecticut—42. 39 p. 10c.
- Delaware—31. 15 p. 10c.
- Florida—33. 17 p. 10c.
- Georgia—55. 23 p. 10c.
- Illinois—52. 53 p. 10c.
- Indiana—38. 37 p. 10c.
- Iowa—32. 27 p. 10c.
- Kansas—28. 25 p. 10c.
- Kentucky and Tennessee—47. 45 p. 10c.
- Louisiana, Mississippi, and Texas—48. 57 p. 10c.
- Maine—51. 25 p. 10c.
- Maryland and District of Columbia—27. 33 p. 10c.
- Massachusetts—53. 79 p. 10c.

Michigan—18. 35 p. 10c.
 Minnesota—46. 27 p. 10c.
 Missouri and Arkansas—35. 47 p. 10c.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p. 10c.
 Nebraska—29. 19 p. 10c.
 New Hampshire and Vermont—41. 35 p. 10c.
 New Jersey—54. 53 p. 10c.
 New York—59. 101 p. 15c.
 North Carolina and South Carolina—39. 37 p. 10c.
 Ohio—58. 61 p. 10c.
 Pennsylvania—60. 81 p. 15c.
 Rhode Island—36. 29 p. 5c.
 Virginia and West Virginia—44. 43 p. 10c.
 Wisconsin—56. 39 p. 10c.

Manufactures, census of 1914—Special industries.

This series of pamphlets will present for about 60 industries the statistics compiled by the Bureau of the Census from the returns of the census of manufactures for 1914. It is expected to complete the series by July 1, 1917. A list showing the industries for which statistics will be published can be had by addressing the Director of the Census. Of this series the following have been issued or were in course of printing on May 8, 1917:

Automobiles, including bodies and parts.	Glass.	Power laundries.
Butter, cheese, and condensed-milk industry.	Glucose and starch.	Rice cleaning and polishing.
Flour mills and grist mills.	Iron and steel.	Soap industry.
Gas industry.	Manufactured ice.	Sugar industry.
	Oilcloth and linoleum.	Turpentine and rosin.
	Paper and wood pulp.	

Manufactures, census of 1914—States.

This series of pamphlets will present the general statistics for the various States gathered at the census of manufactures for 1914, with comparative figures for previous censuses. The statistics are presented in three sections: General statistics, showing for the principal industries the number of persons engaged, prevailing hours of labor, location of establishments, character of ownership, etc.; special statistics, giving detailed data for the principal industries of the States; and general tables, in which are given a comparative summary of all industries combined and specified industries for the State and for cities of 10,000 inhabitants or more for the census years 1904, 1909, and 1914. Of this series the following bulletins have been issued or were in course of printing on May 8, 1917:

Alabama.	Indiana.	Montana.	South Carolina.
Arkansas.	Iowa.	Nebraska.	South Dakota.
Arizona.	Kansas.	Nevada.	Tennessee.
California.	Kentucky.	New Hampshire.	Utah.
Connecticut.	Louisiana.	New Mexico.	Virginia.
Delaware.	Maine.	North Carolina.	Vermont.
Dist. of Columbia.	Massachusetts.	North Dakota.	Washington.
Florida.	Minnesota.	Oklahoma.	West Virginia.
Georgia.	Mississippi.	Oregon.	Wisconsin.
Idaho.	Missouri.	Rhode Island.	Wyoming.
Illinois.			

Manufactures, Census of 1914—Miscellaneous.

Abstract of census of manufactures, 1914. 728 p.

General tables for United States, by geographic divisions, States, and industries, 1914, 1909, 1904, and 1899. 26 p.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

1. Pulp-wood consumption: 1908, 12 p., 5c.;* 1909, 15 p., 5c.;* 1910, 10 p., 5c.;* 1911, 10 p., 5c.
2. Lumber, lath, and shingles: 1908, 57 p., 10c.;* 1909, 63 p., 5c.;* 1910, 45 p., 5c.; 1911, 45 p., 5c.;* 1912, 61 p., 5c.*
3. Slack cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.;* 1909, 14 p., 5c.;* 1910, 8 p., 5c.;* 1911, 8 p., 5c.
- 4.^a Tanbark and tanning extracts: 1907, 10 p., 5c.; 1908, 10 p., 5c.; 1909, 14 p., 5c.
4. Excelsior: 1911. 4 p. 5c.
5. Veneers: 1907, 9 p., 5c.; 1908, 13 p., 5c.; 1909, 23 p., 5c.; 1910, 6 p., 5c.; * 1911, 8 p., 5c.
6. Tight cooperage stock: 1907, 11 p., 5c.; * 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1910, 12 p., 5c.; * 1911, 12 p., 5c.
7. Wood distillation: 1907, 8 p., 5c.;* 1909, 11 p., 5c.; 1910, 5 p., 5c.; 1911, 6 p.
8. Crossties purchased: 1907, 6 p., 5c.; 1908, 8 p., 5c.; 1909, 11 p., 5c.; 1910, 8 p., 5c.; 1911, 8 p., 5c.
9. Poles purchased: 1907, 8 p., 5c.; 1908, 8 p., 5c.; 1909, 14 p., 5c.; 1910, 7 p., 5c.; * 1911, 7 p., 5c.
- 10.^b Forest products of United States: 1907, 122 p., 5c.;* 1908, 137 p., 15c.; 1909, 178 p., 15c.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a This pamphlet was not issued for 1910 and 1911.

^b No. 10 is a consolidation, without change, of Nos. 1 to 9.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish. The Spanish edition is now exhausted. The titles of the English reports are as follows:

- *Vol. I, Geography, history, population. 620 p. \$1.
- *Vol. II, Population. 1048 p. 75c.
- *Vol. III, Mortality, defective classes, education, families and dwellings. 740 p. 75c.
- *Vol. IV, Agriculture, social, and industrial statistics. 638 p. \$1.

In addition to the English reports, three bulletins of the following titles, compiled from these reports, in English only, are available:

1. Population of Philippines. 100 p. 10c.
- *2. Climate of Philippines. 103 p. 10c.
3. Volcanoes and seismic centers of Philippine Archipelago. 80 p. 10c.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand of the United States for information regarding Cuba, the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

- *Cuba: Population, history, and resources: 1907 (compendium). 275 p. 50c.

Vital statistics.

Birth statistics in registration area of United States: 1915. In press.

- *Extension of registration area for births and deaths, practical example of cooperative census methods as applied to State of Pennsylvania, 1906. 51 p. 10c.

Federal registration service of United States: Its development, problems, and defects. 86 p. 7 text fig. 10c.

Index of joint causes of death: 1914. 308 p. 70c.

International classification of causes of sickness and death: 1910. 146 p. 20c.

- *Manual and international classification of causes of deaths: 1902. 177 p. 20c.

Manual of international list of causes of death: 1916. 309 p. 65c.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p. 10c.

Mortality from cancer and other malignant tumors in registration area of United States: 1914. 212 p.

Physicians' pocket reference to international list of causes of death: 1916. 28 p. 5c.

Practical registration methods: 1903. 29 p. 5c.

Tuberculosis in United States: 1908. 67 p. 15c.

United States life tables, 1910. 65 p. 75c.

MISCELLANEOUS.

Annual report of Director, 1916.^a 31 p.

American census taking. 34 p.

Census Office and coordination of statistics. 43 p. 10c.

^a Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a The Superintendent of Documents can supply copies of annual reports for each year since 1903, with the exception of 1911, 1914, 1915, and 1916, at 5 cents each.

- Collaboration in Federal and State statistical work. 73 p. 5c.
- Comparative financial statistics of cities under council and commission government. 1913 and 1915. 15 p. 5c.
- Cooperation and unification in Federal and State statistical work. 48 p.
- Cotton-ginning reports. [Issued in card form (4 by 6 inches) at intervals during cotton-ginning season.]
- Cotton production in United States, crop of 1915. 28 p. 5c.
- Federal estimates of population and Federal supervision of local censuses. (Circular 4.) 15 p.
- History and growth of United States census: 1790-1890. 967 p. 70c.
- Index to occupations, alphabetical and classified. 414 p. 75c.
- Leaf tobacco—Report on quantity held by manufacturers and dealers Apr. 1, 1915. 22 p. 5c.
- List of Bureau of Census publications: 1790-1916. 124 p.
- *Official register, 1915. 910 p. \$1.50.
- *Rank of several States in population, value of crops, etc., census of 1900 and 1910. 2 p. 5c.
- Special census of population of Hamtramck, Mich., June 25, 1915. 16 p. 5c.
- St. Clair Heights, Mich., Nov. 18, 1915. 4 p.
- Tulsa, Okla., Apr. 15, 1915. 16 p. 1 map. 10c.
- El Paso, Tex., Jan. 15, 1916. 7 p.
- Highland Park, Mich., Nov. 15, 1915. 8 p. 1 text fig.
- Hastings, Nebr., Dec. 13, 1915. 7 p.
- Shreveport, La., Feb. 15, 1917. 8 p.
- Standard form for reporting financial statistics of public schools: 1911. 28 p.
- Statistical atlas of United States: 1914. 602 p. 503 pl. 99 text fig. \$2.50.
- Study of cartage costs in city of Washington. 14 p. 5c.
- Summary of State laws relating to care of dependent classes: 1913. 346 p. 40c.
- *Table of illiteracy in foreign countries. 4 p. 5c.
- Tentative program of Bureau of the Census: 1916-1919. 14 p.
- The story of the census: 1790-1916. 38 p. 10c.
- Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p. 5c.
- *Uniform accounts for systems of water supply: 1911. 44 p. 5c.
- Uniform municipal accounting: 1906. 121 p. 25c.
- Work of Permanent Census Bureau: 1902-1913. 31 p. 5c.

COAST AND GEODETIC SURVEY.

In addition to the Annual Report of the Superintendent detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of astronomy, geodesy, topography, hydrography, terrestrial magnetism, the tides and related subjects, charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications are furnished without charge by the Division of Publications, Department of Commerce, and many of them, and also many of those of which the stock for general distribution is exhausted, may be purchased from the Superintendent of Documents, Government Printing Office, at the prices stated in this list.

For convenient identification future publications and revised editions of former publications of the Survey will have a serial number on the upper left-hand corner of cover and title-page, which should be referred to when copies of a publication bearing a serial number are requested.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

coast line or in depths in channels and harbors, and information relating to terrestrial magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey of the year 1908, inclusive, may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at all depositories of public documents and at many public libraries. For later publications the List of Publications issued by the Department should be consulted.

Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots, Inside Route Pilots, and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes 645 charts on different scales, for general or local use, covering the coast of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and coast-pilot notes relating to Alaska, the Philippine Islands, and Hawaii.

Inside Route Pilots have been published covering the navigable waters from New York to Key West, Key West to New Orleans, and the coast of New Jersey. Similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1915, to June 30, 1916. 164 p. 20 litho. 33 pl. \$1.* [There is available a limited supply of annual reports for 1887, 1889, 1901, 1903, 1904, and 1906 to 1915, inclusive.]

GEODESY.

Observations of eclipse of sun on Aug. 7, 1869, made by parties of Survey at following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under immediate direction of Superintendent of Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohklux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts, 3 pl. 16 fig. 1 map, 2 diag.

Observations upon total solar eclipse of Dec. 22, 1870. Report for 1870, app. 16, p. 1-72, 6 pl. 8 text fig. 1 paster.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

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- *Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal.; by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig. [Reprinted from Report for 1871, app. 16.] 10c.
- *Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a 10c.
- *Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^a 10c.
- *Pamlico-Chesapeake arc of meridian and its combination with Nantucket and Peruvian arcs, for determination of figure of earth from American measures; by Charles A. Schott. Report for 1877, app. 6, p. 84-95. 5c.
- *Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.
- Primary triangulation between Maryland and Georgia base lines; by C. A. Schott. Report for 1878, app. 8, p. 1-31, 1 text fig.
- Description of new meridian instrument; by George Davidson. Report for 1879, app. 7, p. 1-9, 1 pl.
- *Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag. 5c.
- Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag. 5c.
- *Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag. 5c.
- *Perfect form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. 5c.
- *Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358. 5c.
- *Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag. 5c.
- Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 503-516.
- *Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.
- Transit of Mercury of Nov. 7, 1881, as observed at Yolo base, Cal.; by George Davidson and J. J. Gilbert. Report for 1883, app. 15, p. 369-370.
- *Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Eimbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378. 5c.
- Field catalogue of time and circumpolar stars for 1885; by George Davidson. Report for 1883, app. 18, p. 1-91.
- *Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880; by Charles S. Peirce. Report for 1883, app. 19, p. 473-487. 10c.
- Run of micrometer; by George Davidson. Report for 1884, app. 8, p. 377-385. 5c.
- Connection at Lake Ontario of primary triangulation of Coast and Geodetic Survey with that of Lake Survey; observations by Charles O. Boutelle; discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map.

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^a Appendixes 16-19 of Report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Allied subjects," p. 34.

- *Results of trigonometrical determination of heights of stations forming Davidson quadrilaterals, Cal.; observations by George Davidson, 1876-1882; discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 fig. 5c.
- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment; by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.
- *Determinations of gravity with Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokyo, Japan; San Francisco, Cal.; and Washington, D. C.; by Edwin Smith. Report for 1884, app. 14, p. 439-473. 10c.
- *Use of noddy for measuring amplitude of swaying in pendulum support; by C. S. Peirce. Report for 1884, app. 15, p. 475-482. 5c.
- *Note on effect of flexure of pendulum upon its period of oscillation; by C. S. Peirce. Report for 1884, app. 16, p. 483-485. 5c.
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- Results deduced from geodetic connection of Yolo base line with primary triangulation of California, also reduction and adjustment of Davidson quadrilaterals forming part of that triangulation; by Charles A. Schott. Report for 1885, app. 9, p. 441-467, 1 fig.
- *Note on device for abbreviating time reductions; by C. S. Peirce. Report for 1885, app. 15, p. 503-508. 5c.
- *Influence of noddy on period of pendulum; by C. S. Peirce. Report for 1885, app. 16, p. 509-510. 5c.^a
- *Effect of unequal temperature upon reversible pendulum; by C. S. Peirce. Report for 1885, app. 17, p. 511-512. 5c.^a
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- *Heights from spirit levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, 1885-86; by Charles A. Schott. Report for 1887, app. 9, p. 185-205. 5c.
- *Results of spirit leveling of precision about New York Bay and vicinity, 1886 and 1887; observations by John B. Weir and J. E. McGrath; discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map. 5c.
- Bibliography of geodesy; by J. Howard Gore. Report for 1887, app. 16, p. 313-512
- Geographical positions of trigonometrical points in Connecticut, determined by Survey, 1833-1886—Introduction and explanation of tabular results; by Charles A. Schott. Report for 1888, app. 8, 313-403, 1 map.
- *Heights from spirit leveling of precision between Mobile, Ala., and Okolona, Miss.; observations by J. B. Weir and J. E. McGrath, 1884, 1886, and 1887; report by Charles A. Schott. Report for 1888, app. 10, p. 409-426. 5c.
- *Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's Landing, Miss., opposite Arkansas City, Ark.; report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453. 5c.
- *Heights from spirit leveling of precision between Arkansas City (on Mississippi River) and Little Rock, Ark.; observations by J. E. McGrath, 1887-88; report by Charles A. Schott. Report for 1888, app. 12, p. 455-464. 5c.
- *Differential method of computing apparent places of stars for determinations of latitude; by E. D. Preston. Report for 1888, app. 13, p. 465-470. 5c.
- Determinations of latitude and gravity for Hawaiian Government; by E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pl., 5 maps, 5 diag. 25c.
- Same, abstract. Bull. 11, p. 137-142, 1 fig. 3 maps. 1889.
- Measurement of Los Angeles base line. Los Angeles and Orange counties, Cal.; by George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag.
- *Results of spirit leveling between tidewater at Annapolis, Md., and Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins; report by C. A. Schott. Report for 1889, app. 15, p. 461-466. 5c.

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^aAppendixes 16 and 17 to Report for 1885 are bound together: price, 5 cents.

- Resulting length and probable uncertainty of five principal base lines, measured with compensation base apparatus, Bache-Würdemann, of Survey, 1847-1855; by Charles A. Schott. Report for 1889; app. 17, p. 479-491. 5c.
- *Report of George Davidson, appointed by President as delegate to 9th conference of International Geodetic Association held at Paris, Oct., 1889. Report for 1889, app. 18, p. 493-503, 1 fig. 5c.
- *Telegraphic determination of longitude of Mount Hamilton, Cal.—Field work by C. H. Sinclair and R. A. Marr; by Charles A. Schott. Bull. 13, p. 147-150. 1889. 5c.
- Description of two new transit instruments for longitude work, constructed at office of Survey from designs by Edwin Smith. Bull. 16, p. 161-164, 1 fig. 1 diag. 1889. 10c.
- Results of observations made to determine gravity and magnetic elements at stations on West Coast of Africa, and on some islands in North and South Atlantic, 1889-90; by E. D. Preston. Bull. 22, p. 219-223, 8 pl. 1891.
- Determinations of gravity and magnetic elements in connection with United States scientific expedition to West Coast of Africa, 1889-90; by E. D. Preston. Report for 1890, app. 12, p. 625-684, 10 pl. 16 fig. 1 map. [Includes observations on some islands in the North and South Atlantic Ocean.] 15c.
- International Geodetic Association, 9th conference, Paris, Oct. 3-12, 1889—Address of George Davidson, delegate to association on part of United States. Report for 1890, app. 17, p. 721-733.
- Geographical explorations. Report for 1890, app. 19.
- Determination of azimuth from micrometric observations of close circumpolar star near elongation by means of meridian transit, or of a theodolite with eyepiece micrometer. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report on method and example of computation by Charles A. Schott; observations by A. T. Mosman. Report for 1891, pt. 2, app. 2, p. 15-19. [Reprinted from Bull. 21.] 5c.
- Report of expedition to Muir Glacier, Alaska, with determinations of latitude and magnetic elements at Camp Muir, Glacier Bay; by Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- Observations at Rockville, Md., for variations of latitude in cooperation with International Geodetic Association; by Edwin Smith and Charles A. Schott. Bull. 25, p. 237-261, 2 text fig. 1892.
- Variation of latitude at Rockville, Md., as determined from observations, 1891 and 1892, in cooperation with International Geodetic Association; by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 fig. 2 pl. 2 diag.
- Variation of latitude at Waikiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association; by E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl. 1 fig. 2 maps, 9 diag.
- Measure of irregularity in one turn of micrometer screw, and relative value of each turn; by George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag. 5c.
- *Resulting heights from geodetic leveling along transcontinental line of levels between St. Louis and Jefferson City, Mo., 1882 and 1888; by Andrew Braid, Gershom Bradford, and Isaac Winston; discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig. 1 diag. 5c.
- Photography as applied to obtain instantaneous record of lunar distances for determinations of longitude; by C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124. 5c.
- Measurement of base line with steel tapes and with steel and brass wires; by Edw. Jäderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl. 1 diag. 5c.
- Proceedings of Geodetic Conference, held at Washington, D. C., Jan. 9-Feb. 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 7 pl. 4 fig. 1 map, 1 diag. 15c.
- Variation of latitude at San Francisco, Cal., as determined from observations made by George Davidson, May, 1891-Aug., 1892; discussion of results and report by Chas. A. Schott. Report for 1893, pt. 2, app. 11, p. 441-508, 2 diag.
- Determinations of latitude, gravity, and magnetic elements at stations in Hawaiian Islands, including result for mean density of earth, 1891-92; by E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 8 pl. 12 fig. 2 maps, 6 diag.

- Results of observations for variations of latitude at Waikiki, Hawaii, in cooperation with work of International Geodetic Association; by E. D. Preston. Bull. 27, p. 6-20, 2 diag. 1893. 5c.
- Constant of aberration as determined from discussion of results for latitude at Waikiki, Hawaii; by E. D. Preston. Bull. 28, p. 21-34, 1 diag. 1893. 5c.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations; by G. R. Putnam. Also report on geologic examination of some Survey gravity stations; by G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 fig. 1 diag. 15c.
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- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 3, p. 333-344.
- *Graphic method of reducing stars from mean to apparent places; by E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diag. 10c.
- *Description of leveling rods designed and constructed for use in geodetic leveling operations; by Isaac Winston. Report for 1895, app. 8, p. 381-382, 2 diag. 5c.
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- *Constant of aberration as determined from observations of latitude at San Francisco, Cal.; discussion by E. D. Preston; observations by George Davidson. Bull. 32, p. 109-120. 1895. 5c.
- *Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir, Sept.-Nov., 1884, and by I. Winston, Dec., 1891-Feb., 1892; by C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map. 5c.
- *Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations by J. B. Weir, Sept. and Oct., 1883, and Sept. and Oct., 1884, with releveling by J. B. Weir between Richmond, and Fredericksburg, Va., May and June, 1886, and verification leveling between the two cities by I. Winston, Apr.-June, 1895; by Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map. 5c.
- *Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations by J. B. Weir, July-Sept., 1883; report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map. 5c.
- *Resulting heights from spirit leveling between Jefferson City, Mo., and Holliday, Kans., from observations by I. Winston and F. A. Young, Apr. 21-Oct. 13, 1891; report by Charles A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig. 1 map. 5c.
- Field method of reducing portable transit time observations; by G. R. Putnam. Report for 1896, app. 9, p. 347-352. 5c.
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- Telegraphic longitude net of United States and its connection with that of Europe, 1866-1896; by Charles A. Schott. Report for 1897, app. 2, p. 197-261, 1 map. 10c.
- Resulting longitudes of Kodiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by party under charge of Fremont Morse; by Charles A. Schott. Report for 1897, app. 3, p. 263-268. 5c.

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- *Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston, July 11–Oct. 28, 1895; by Charles A. Schott. Report for 1897, app. 4, p. 269–283, 1 fig. 5c.
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- Measurement of Salt Lake base line in Utah; by William Eimbeck. Report for 1897, app. 12, p. 753–774, 1 fig. 6 pl. 1 map, 2 diag. 15c.
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- Inquiry into relative value and need of check of Peruvian arc of 1736–1743; by Charles A. Schott. Report for 1898, app. 4, p. 229–232.
- Physical observations made in connection with the Pribilof Islands survey of 1897; by G. R. Putnam. Report for 1898, app. 5, p. 233–241, 1 fig. 1 map.
- Report on proceedings of International Geodetic Association Conference at Stuttgart, Germany, Oct. 3–12, 1898, and on geodetic operations in United States; by E. D. Preston, delegate on part of United States. Report for 1898, app. 6, p. 243–260, 1 pl. 3 maps.
- International Geodetic Association for measurement of the earth; by Erasmus D. Preston, delegate on part of United States at 12th general conference. Report for 1899, app. 3, p. 241–269, 1 map. 10c.
- Determinations of gravity at Polytechnic Institute, Worcester, Mass., and Columbia University, New York City, with pendulum apparatus B; by Edwin Smith. Report for 1899, app. 4, p. 271–282, 2 fig. 5c.
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- *Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton, May 8–Oct. 17, 1899; by B. E. Tilton. Report for 1899, app. 6, p. 299–320, 1 fig. 5c.
- *Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson, June 3–Nov. 28, 1899; report by O. W. Ferguson. Report for 1899, app. 7, p. 321–345, 1 fig. 5c.
- Precise leveling in United States; by John F. Hayford. Report for 1899, app. 8, p. 347–386, 8 pl. 3 fig. 2 maps. 40c.
- Oblique boundary line between California and Nevada; by C. H. Sinclair. Report for 1900, app. 3, p. 255–484, 32 pl. 121 fig. 15 maps. 60c.
- International latitude service at Gaithersburg, Md., and Ukiah, Cal., under auspices of International Geodetic Association; by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495–520, 2 pl. 1 fig. 2 maps, 2 diag. 10c.
- Transcontinental triangulation and American arc of parallel; by Charles A. Schott. Special publication 4. 871 p. 17 pl. 2 fig. 4 maps, 33 diag. 1900. \$1.60.
- Measurement of nine base lines along 98th meridian; by A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229–302.
- Triangulation northward along 98th meridian in Kansas and Nebraska; by John F. Hayford. Report for 1901, app. 6, p. 357–423.
- Triangulation in Kansas; by J. F. Hayford. Report for 1902, app. 3, p. 211–293, 5 maps. 15c.
- Bibliography of geodesy; by J. H. Gore. 2d ed. Report for 1902, app. 8, p. 427–787. 25c.
- Eastern oblique arc of United States and osculating spheroid; by Charles A. Schott. Special publication 7. 394 p. 12 pl. 2 maps, 25 diag. 1902. 90c.
- Precise leveling in United States, 1900–1903, with readjustment of level net and resulting elevations; by J. F. Hayford. Report for 1903, app. 3, p. 189–810, 2 views, 14 maps and sketches, 6 diag. 40c.

- Triangulation southward along the 98th meridian in 1902; by J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diag.
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- Figure of earth and isostasy from measurements in United States; by J. F. Hayford. 178 p. 6 maps, 11 diag. 1909. \$1.35.
- Supplementary investigation of figure of earth and isostasy, 1909; by J. F. Hayford. 80 p. 5 maps, 1 diag. 85c.
- *Geodetic operations in United States, 1906-1909—Report of 16th general conference of International Geodetic Association; by O. H. Tittmann and J. F. Hayford. 11 p. 5c.
- Primary base lines at Stanton, Tex., and Deming, N. Mex.; by William Bowie. Report for 1910, app. 4, p. 143-171, 5 text fig. 5c.
- Triangulation in California: pt. 2; by C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diag.
- Measurement of flexure of pendulum supports with interferometer; by W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text fig. 5c.
- Formulae and tables for computation of geodetic positions. 5th ed., with preface by C. R. Duvall. Special publication 8. 91 p. 1911. 15c.
- Effect of topography and isostatic compensation upon intensity of gravity; by John F. Hayford and William Bowie. Special publication 10. 132 p. 11 text fig. 9 charts. 1912. 35c.
- Same, second paper; by William Bowie. Special publication 12. 28 p. 5 charts. 1912. 40c.
- Triangulation along 98th meridian, Nebraska to Canada, and connection with Great Lakes; by William Bowie. Report for 1911, app. 4, p. 159-342, 2 pl. 10 p. of pl.
- Triangulation along 98th meridian, Seguin to Point Isabel, Tex.; by A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text fig. 20c.
- Triangulation along east coast of Florida and on Florida keys; by Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text fig. 20c.
- Texas-California arc of primary triangulation; by William Bowie. Special publication 11. 141 p. 8 pl. 10 fig. 1912. 20c.
- Geodetic operations in United States, 1909-1912—Report to 17th general conference of International Geodetic Association; by O. H. Tittmann. 18 p. 3 pl.
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HYDROGRAPHY.

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- Same, sec. 3, Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.

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 Same, sec. 5, Coasts of Mindanao and adjacent islands. 4th ed. 1913. 201 p.
 Same, sec. 6 and 7, Mindoro Strait, Palawan Island, and Sulu Sea and Archipelago. 3d ed. 1911. 251 p.

Notice to mariners.

- Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

- Type forms of topography, Columbia River; by E. Hergesheimer. Report for 1881. app. 7, p. 124–125, 7 fig. 1 map.
 *Proceedings of Topographical Conference, Washington, D. C., Jan. 18–Mar. 7, 1892. Report for 1891, pt. 2, app. 16, p. 565–746, 2 pl. 25 fig. 1 map, 5 diag. 25c.
 Subdivision 1. List of original topographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834–Dec. 31, 1895; nos. 1–2209. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834–Dec. 31, 1895; nos. 1–2222. Report for 1895, app. 11, p. 399–516. 40c.
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 Records and results of magnetic observations made at charge of "Bache fund" of National Academy of Sciences, 1871–1876; under direction of J. E. Hilgard, M. N. A. S., by H. W. Blair. Report for 1882, app. 14, p. 329–426.
 *Account and results of magnetic observations made under direction of Survey in cooperation with United States Signal Office at United States polar station, Ooglaamie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323–365, 10 fig. 1 map. 10c.
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- Results of observations made at Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, 1882-1889: pt. 1, Results of absolute measures of direction and intensity of earth's magnetic force; discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241. 10c.
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- Magnetic observations made during Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730; discussion by C. A. Schott. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report for 1891, pt. 2, app. 5, p. 269-273.
- Results of magnetic observations at stations in Alaska and in northwest territory of Dominion of Canada; observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, 1889, 1890, and 1891; discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.
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- Secular variation in direction and intensity of earth's magnetic force in United States and in some adjacent foreign countries; by Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag.
- Direction and intensity of earth's magnetic force at San Francisco, Cal.; by C. A. Schott. Bull. 33, p. 121-126. 1895.
- Distribution of magnetic declination in United States for epoch Jan. 1, 1900; by Charles A. Schott. 3d ed. Report for 1896, app. 1, p. 147-235, 3 illus.
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State laws authorizing officers of Survey to enter upon lands within State limits for purposes of the Survey. Report for 1893, app. 1, p. 1-18.

*Boundary line between Pennsylvania and Delaware: pt. 1, Historical account of boundary line; pt. 2, Detailed account of work on boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig. 3 maps, 2 facims. 10c.

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* Appendices 16-19 of Report for 1876 are bound under one cover. Appendices 16-18 are listed under the heading "Geodesy," p. 21.

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- *849. Notes on embryology and larval development of 12 teleostean fishes. In press.
- *850. Occurrence in Virginia of green-gilled oysters similar to those of Marennes. In press.
- *851. Nutrition of oysters: Glycogen formation and storage; by Philip H. Mitchell. In press.

ECONOMIC CIRCULARS.

- *1. Mussel beds of Cumberland River in 1911. Feb. 13, 1912. 4 p. 5c.
- *2. Condition of mussel fishery of Illinois River in 1912. Sept. 20, 1912. 4 p. 5c.
- *3. Mussels of central and northern Minnesota. Oct. 26, 1912. 6 p. 5c.
- *4. Truth about fur seals of Pribilof Islands. Dec. 20, 1912. 7 p. 5c.
- 5. Artificial propagation of diamond-back terrapin. Revised Mar. 17, 1917. 22 p. 5 text fig.
- 6. Mussel fisheries of Caddo Lake and Cypress and Sulphur Rivers of Texas and Louisiana. Dec. 10, 1913. 10 p. 5c.
- 7. Opportunity for new sea-scallop fishery off middle Atlantic coast. Jan. 28, 1914. 5 p. 2 text fig. 5c.
- *8. Offshore fishing grounds of North Carolina. Feb. 25, 1914. 6 p. 1 text fig. 5c.
- 9. Mussel streams of eastern Oklahoma. Feb. 17, 1914. 4 p. 5c.
- *10. Mussel resources in Missouri. Feb. 27, 1914. 6 p. 5c.
- 11. Canned salmon: Cheaper than meats and why; including 50 tested recipes. Mar. 7, 1914. 11 p. 5c.
- 12. Sea mussels: What they are and how to cook them; with 18 recipes. Mar. 24, 1914. 5 p. 1 text fig. 5c.
- 14. Mussel resources of Tensas River of Louisiana. Apr. 9, 1915. 7 p.
- 15. Common and scientific names of fresh-water mussels. Apr. 8, 1915. 4 p.
- 16. Concerning mortality of soft clams at Essex, Mass. Apr. 8, 1915. 4 p. 1 text fig. 5c.
- 17. Fishes destructive to eggs and larvæ of mosquitoes; by Lewis Radcliffe. July 1, 1915. 19 p. 28 text fig. 5c.
- 18. Oysters: Food that has not "gone up;" by H. F. Moore. Aug. 26, 1915. 16 p. 5c.
- 19. Tilefish: New deep-sea food fish. Sept. 30, 1915. 6 p. 2 text fig.
- 20. Caviar: What it is and how to prepare it; by Lewis Radcliffe. Apr. 19, 1916. 8 p. 3 text fig. 5c.
- 21. Information concerning parasitic worms in fish. Oct. 14, 1916. 4 p. 5c.
- 22. Grayfish. Try it. It knocks H out of H. C. of L. Nov. 29, 1916. 8 p. 1 text fig. 5c.
- 23. Sablefish, alias black cod. Mar. 8, 1917. 6 p. 1 text fig. 5c.
- 24. Question of fishways. May 8, 1917. 6 p. 5c.
- 25. Burbot: Fresh-water cousin of cod. May 9, 1917. 4 p. 1 text fig. 5c.
- 26. Bowfin: Old-fashioned fish with new-found use. May 11, 1917. 4 p. 1 text fig. 5c.
- 27. Practical small smokehouse for fish: How to construct and operate it. May 17, 1917. 7 p. 3 text fig. 5c.
- 28. Preserving fish for domestic use. 2 p. In press.

STATISTICAL BULLETINS.

Statistical bulletins of the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., and Seattle, Wash., by American fishing vessels, are issued monthly and annually. The monthly issues are not carried in this list, but can be obtained upon application.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- 272. Oyster industry of the South Atlantic States, 1910.
- 273. Oyster industry of the Gulf States, 1911.
- 286. Oyster industry of Maryland and Virginia, 1912.
- 289. Oyster industry of the Pacific Coast States, 1912.
- 295. Menhaden industry of the Atlantic Coast States in 1912.
- 305. Fresh-water mussel fishery of streams tributary to the Gulf of Mexico from the Ohio River southward in 1912.
- 307. Fresh-water pearl-button industry of the United States in 1912.
- 314. Fresh-water mussel fishery of streams tributary to the Great Lakes and the Ohio and Mississippi Rivers north of the Ohio and east of the Mississippi River in 1913.
- 336. Crab industry of Maryland and Virginia, 1915.
- 339. Shad and alewife industry of Chesapeake Bay and tributaries, 1915.
- 343. Fresh-water mussel fishery of the Mississippi River and its western tributaries from Kansas northward in 1914.
- 355. Coastal fisheries of New York and New Jersey, by counties, exclusive of shellfish, 1915, and shad fishery of Hudson River, 1915 and 1916.
- 368. Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the year 1916.
- 369. Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the calendar year 1916.
- 370. Quantities and values of certain fishery products landed at Seattle, Wash., by American fishing vessels, calendar year 1916, by fishing grounds and by months, and fishery products taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, calendar year 1916, by months.

MISCELLANEOUS.

- *Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 1, Physical and zoological; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 2, Botanical; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 1, 544 p. 1 chart, 3 maps, 270 text fig. 90c.
- *Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 3, Catalogue of marine fauna; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 4, Catalogue of the marine flora; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 2, 318 p. 65c.
- *Alaska investigations in 1914; by E. Lester Jones. Dec. 31, 1914. 155 p. 208 text fig. 50c.
- Bureau of Fisheries and its station at Woods Hole, Mass. 11 p. 3 text fig. 1915. 5c.
- Bureau of Fisheries and its biological station at Beaufort, N. C. 11 p. 6 text fig. 1916. 5c.
- Work of Bureau of Fisheries and its fish-cultural station at Boothbay Harbor, Me. 13 p. 6 text fig. 1917. 5c.

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Report of the Chief of the Bureau of Foreign and Domestic Commerce. (Annual.) Commerce Reports. (Daily.) Single copies, 5c.; annual subscription, \$2.50; cloth-bound quarterly volumes, with index, \$6 per annum. [The annual reports of United States consular officers on commercial conditions in foreign countries, which

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were formerly printed as Commercial Relations, are now issued as Supplements to Commerce Reports, each report being printed separately as soon as available. These supplements are furnished free to annual subscribers to Commerce Reports.]

Foreign Commerce and Navigation of the United States. (Annual.) \$1.50.^a

Imports of Merchandise Into the United States, by Articles and Countries (five-year tables). [Table 3 from Foreign Commerce and Navigation of the United States.] (Annual.) 40c.^a

Exports of Domestic Merchandise from the United States, by Articles and Countries (five-year tables). [Table 5 from Foreign Commerce and Navigation of the United States.] (Annual.) 50c.^a

Imported Merchandise Entered for Consumption in the United States and Duties Collected Thereon and Total Values, by Customs Districts. [Tables 9 and 10 from Foreign Commerce and Navigation of the United States.] (Annual.) 15c.

Statistical Abstract of the United States. (Annual.) 50c.^a

Imported Merchandise Entered for Consumption in the United States and Duties Collected Thereon. (Quarterly.) Single copies, 15c. to 25c.; annual subscription, 75c.

Summary of the Foreign Commerce of the United States. (Monthly.) Single copies, 15c.; annual subscription, \$1.50.

Exports of Domestic Breadstuffs, Cottonseed Oil, Food Animals, Meat and Dairy Products, Cotton, and Mineral Oils from Principal Customs Districts of United States. (Monthly.)

Total Values of Imports and Exports of the United States. (Monthly.)

Foreign Tariff Notes. [Notes on foreign customs changes reprinted from daily Commerce Reports.] (Quarterly.)

Other publications of the Bureau are reports of commercial agents sent abroad to investigate trade conditions with respect to selected industries; special reports of consular officers on assigned subjects; translations of foreign tariffs; and miscellaneous pamphlets on domestic conditions and opportunities for extending the foreign trade.

The following is a complete list of the available publications of the Bureau:

Annual report of chief, 1916. 97 p. [There are also available copies of the annual report for 1914.]

Foreign commerce and navigation of United States, fiscal year 1916. 1,006 p. \$1.50.^b

Parts of Foreign commerce and navigation for 1906:

Table 6. Exports of domestic merchandise from United States, by articles and countries (five-year tables). 418 p. 35c.

Parts of Foreign commerce and navigation for 1909-1913:

Tables 15 and 16. Imported merchandise entered for consumption in United States and duties collected thereon, by articles, and total values, by customs districts and ports. (Fiscal years 1912 and 1913.) 75 p.

Tables 17 and 18. Drawback paid on articles exported. (Fiscal years 1909, 1911, and 1912.) 20 p.

^a Price at which the most recent edition is sold by the Superintendent of Documents. The prices for other editions vary.

^b The Superintendent of Documents can supply copies of Foreign Commerce and Navigation, cloth-bound unless otherwise noted, at the following prices: 1845 (paper), 15c.; 1849 (half leather), 50c.; 1850, 30c.; 1851, 30c.; 1852, 30c.; 1853, 30c.; 1854, 30c.; 1855, 30c.; 1856, 50c.; 1857, 50c.; 1858, 50c.; 1859, 50c.; 1860, 50c.; 1861, 80c.; 1862, 30c.; 1863, 50c.; 1864, 35c.; 1865, 60c.; 1866, 35c.; 1867, 60c.; 1868, 90c.; 1869, 55c.; 1870, 60c.; 1871, 60c.; 1872, 60c.; 1873, 60c.; 1874, 65c.; 1875, 60c.; 1876, pt. 1, 70c.; 1876, pt. 2, 40c.; 1877, 70c.; 1878, pt. 1, 25c.; 1878, pt. 2, 75c.; 1878, pt. 3, 50c.; 1879, 90c.; 1880, pt. 1, 70c.; 1880, pt. 2, 35c.; 1881, 70c.; 1882, pt. 1, 70c.; 1882, pt. 2, 50c.; 1883, 70c.; 1884, pt. 1, 80c.; 1884, pt. 2, 50c.; 1885, pt. 1, 85c.; 1886, pt. 1, 85c.; 1887, pt. 1, 85c.; 1887, pt. 2, 45c.; 1888, 85c.; 1889, pt. 1, 85c.; 1889, pt. 2, 70c.; 1890, pt. 1, 80c.; 1890, pt. 2, 80c.; 1891, pt. 1, 90c.; 1891, pt. 2, 25c.; 1892, 95c.; 1893, \$1.10; 1894, pt. 1, \$1.25; 1894, pt. 2 (paper), 15c.; 1895, pt. 1, \$1.35; 1895, pt. 2, 70c.; 1896, pt. 1, \$1.15; 1896, pt. 2, 90c.; 1897, pt. 1, \$1.25; 1897, pt. 2, \$1.25; 1898, \$1.25; 1899, pt. 1, \$1.35; 1899, pt. 2, \$1.35; 1900, pt. 1, \$1.35; 1900, pt. 2, \$1.35; 1901, pt. 1, \$1.50; 1901, pt. 2, \$1.80; 1902, pt. 1, \$1.15; 1902, pt. 2, \$1; 1903, pt. 1, \$1.15; 1903, pt. 2, \$1.15; 1904, pt. 1, \$1.25; 1904, pt. 2, 85c.; 1905, \$1.10; 1906, \$1.50; 1907, \$1.50; 1908, \$2; 1909, \$1.50; 1910, \$1.70; 1911, \$1.50; 1912, \$1.65; 1914, \$1; 1915, \$1; 1916, \$1.50.

Parts of Foreign commerce and navigation for 1914:

Table 3. Imports of merchandise into United States, by articles and countries (five-year tables). 282 p. 40c.

Table 5. Exports of domestic merchandise from United States, by articles and countries (five-year tables). 389 p. 50c.

Tables 9 and 10. Imported merchandise entered for consumption in United States and duties collected thereon, and total values, by customs districts. 91 p. 15c.

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Tables 9 and 10. Imported merchandise entered for consumption in United States and duties collected thereon, and total values, by customs districts. 57 p. 15c.

Parts of Foreign commerce and navigation for 1916:

Table 3. Imports of merchandise into United States, by articles and countries (five-year tables). 281 p. 30c.

Table 5. Exports of domestic merchandise from United States, by articles and countries (five-year tables). 427 p. 35c.

Tables 9 and 10. Imported merchandise entered for consumption in United States and duties collected thereon, and total values, by customs districts. 57 p. 15c.

Statistical abstract of United States; 1892, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1911, 1912, 1913, and 1916. Approx. 700 p. 50c.^a

Imported merchandise entered for consumption in United States and duties collected thereon [for each quarter from June 30, 1912, to date]. 15c. to 25c.; 75c. per annum.

*Commercial relations of United States with foreign countries. Revised statistics, calendar year 1912. 272 p. 40c.

Monthly summary of foreign commerce of United States. 88 p. (average).

1906. January, 15c.; February, 15c.; March, 15c.; April, 15c.; May, 25c.; June, 25c.; July, 25c.; August, 20c.; September, 20c.; October 25c.; November, 20c.; December, 35c.

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1910. January, 20c.; February, 20c.; March, 20c.; April, 20c.; May, 25c.; June, 25c.; July, 20c.; August, 20c.; September, 20c.; October, 20c.; November, 20c.; December, 30c.

1911. January, 20c.; February, 20c.; March, 20c.; April, 20c.; May, 20c.; June, 25c.; July, 20c.; August, 20c.; September, 20c.; October, 20c.; November, 25c.; December, 35c.

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The Superintendent of Documents can supply copies of Statistical Abstract of the United States at the following prices: 1881, paper, 15c.; same, half leather, 40c.; 1882, paper, 15c.; 1885, paper, 20c.; same, half leather, 45c.; 1886, paper, 15c.; same, half leather, 50c.; 1887, paper, 15c.; same, half leather, 40c.; 1888, paper, 15c.; same, half leather, 40c.; 1889, paper, 15c.; same, half leather, 40c.; 1890, paper, 25c.; same, half leather, 60c.; 1891, paper, 20c.; same, half leather, 60c.; 1892, paper, 25c.; same, half leather, 60c.; 1893, paper, 25c.; same, half leather, 75c.; 1894, paper, 25c.; same, half leather, 35c.; 1895, paper, 25c.; same, half leather, 75c.; 1896, paper, 25c.; same, cloth, 35c.; 1897, paper, 25c.; same, cloth, 35c.; 1898, cloth, 35c.; 1899, paper, 25c.; same, cloth, 35c.; 1900, paper, 25c.; same, cloth, 35c.; 1901, paper, 25c.; same, cloth, 35c.; 1902, paper, 30c.; same, cloth, 45c.; 1903, paper, 35c.; same, cloth, 50c.; 1904, paper, 35c.; same, cloth, 50c.; 1905, paper, 35c.; same, cloth, 50c.; 1906, paper, 60c.; same, cloth, 75c.; 1907, paper, 60c.; same, cloth, 90c.; 1908, paper, 50c.; same, cloth, 75c.; 1909, paper, 50c.; same, cloth, 70c.; 1910, paper, 50c.; same, cloth, 70c.; 1911, paper, 50c.; same, cloth, 70c.; 1912, paper, 50c.; 1913, paper, 50c.; 1915, paper, 50c.; same, cloth, 65c.; 1916, paper, 50c.; same, cloth, 65c.

Monthly summary of foreign commerce of United States—Continued.

1912. January, 20c.; February, 20c.; March, 25c.; April, 25c.; May, 25c.; June, 25c.; July, 20c.; August, 20c.; September, 20c.; October, 20c.; November, 15c.; December, 25c.
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1917. January, February, March. 15c. per issue.
- Calendar-year statements, total values of imports and exports of merchandise and of gold and silver. 47 p. 1911 and 1912.
- *Statistical abstract of foreign countries. 470 p. 1909. 50c.
- Dyestuff situation in United States; by Thomas H. Norton. [Reprint from Commerce reports for May 17, 1915.] 12 p.
- Potash production in California and potash from kelp; by Thomas H. Norton. [Reprint from Commerce reports for June 12 and 19, 1915.] 13 p. 5c.
- List of publications [of Bureau of Foreign and Domestic Commerce] for sale by Superintendent of Documents and by district offices of Bureau. 1917. 10 p.
- Shippers' export declarations and export procedure. (Treasury decision 35969.) Dec. 20, 1915. 12 p. 5c.
- Catalogue of Bureau's publications. 47 p.
- Same, supplement. Mar. 1, 1917. 4 p.
- Saving of waste-paper material. May 10, 1916. 8 p. 3 text fig.
- Position of United States in world trade. [Reprint from Annual report of Chief of Bureau of Foreign and Domestic Commerce, 1916.] 14 p.
- Government assistance to American exporters. Feb., 1917. 8 p.

SPECIAL AGENTS SERIES.

- *13. Cotton fabrics in British India and Philippines; by W. A. Graham Clark. 117 p. 1907. 15c.
- *15. England's cotton industry; by William Whittam, jr. 54 p. 1907. 10c.
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- *43. Trade development in Argentina; by James Davenport Whelpley. 94 p. 8 text fig. 1911. 10c.
- *44. Cotton goods in Latin America: pt. 4, Chile, Bolivia, Peru, Ecuador, Jamaica, and Porto Rico; by W. A. Graham Clark. 118 p. 8 text fig. 1911. Paper, 10c.; cloth, 25c.
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51. Cotton goods in Russia; by Ralph M. Odell. 48 p. 1912. 5c.
- *52. Utilization of atmospheric nitrogen; by Thomas H. Norton. 178 p. 5 text fig. 1912. 15c.
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80. Cotton goods in British East Africa, Uganda, Zanzibar, and German East Africa; by Ralph M. Odell. 91 p. 1914. 15c.
- *81. South America as export field; by Otto Wilson. 216 p. [Includes list of Bureau's publications on South America.] 1914. 25c.
82. Cotton goods in Portuguese East Africa; by Ralph M. Odell. 35 p. 1914. 10c.
83. Cotton goods in South Africa; by Ralph M. Odell. 60 p. 1914. 10c.
- *84. Cottonseed products and their competitors in northern Europe: pt. 1, Cake and meal; by Erwin W. Thompson. 93 p. 2 text fig. 1914. 10c.
85. South American markets for drug products, patent and proprietary medicines, surgical instruments, and dental supplies; by E. A. Thayer. 75 p. 1914. 10c.
86. Cotton goods in Japan and their competition on Manchurian market; by W. A. Graham Clark. 282 p. 3 pl. 1914. 30c. [See also Special Consular Report 74.]
- *87. South American trade in canned goods; by E. A. Thayer. 36 p. 1914. 5c.
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Lighthouse Service. [Brief sketch of Lighthouse Service.] 4 p.

Prevention of disease and care of sick and injured: Medical handbook for use of lighthouse vessels and stations; revised by W. G. Stimpson, M. D., Assistant Surgeon General, U. S. Public Health Service, with supplement on First aid to injured, by R. M. Woodward, M. D., surgeon, U. S. Public Health Service. June 11, 1915. 116 p. 61 text fig. 50c.^a

United States Lighthouse Service, 1915; compiled by John S. Conway, Deputy Commissioner of Lighthouses. 94 p. 42 text fig.

Useful information concerning aids to navigation. 1 p. 1 pl. 1916.

Two-hundredth anniversary of Boston Light. Sept. 25, 1916. 13 p. 2 p. of pl.

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The following publications of the Bureau of Navigation are for free but judicious distribution so long as the Department editions are available. Requests should be addressed to the "Commissioner of Navigation, Department of Commerce, Washington, D. C." Copies of some of the publications may also be obtained from the Superintendent of Documents at the prices stated.

Annual report of Commissioner, 1916. 245 p. [There are also available few copies of reports for 1885, 1889, 1890, 1894 to 1908, 1910, 1911, and 1915.]

Merchant vessels of the United States, with official numbers and signal letters, and lists of vessels belonging to United States Government, with distinguishing signals, year ended June 30, 1916. 492 p. 75c.^b

Seagoing vessels of United States, with official numbers and signal letters. Part 6 of 48th annual list of merchant vessels of United States, year ended June 30, 1916. (Printed exclusively for instruction of captains of seagoing vessels of United States.) 126 p. 14 litho. 53 text fig. 25c.^b

Navigation laws of United States. May 18, 1915. 585 p. \$1.

Same, 1st supplement. Sept. 23, 1916. 18 p. 5c.

Rules for the St. Marys River. Apr. 15, 1911. 14 p.

Radio communication laws and regulations of United States. July 27, 1914, with addenda giving amendments to Jan. 1, 1917. 104 p. 15c.

*Radio stations of United States. July 1, 1916. 178 p. 15c.

Radio Service bulletin, Nos. 19-27, July, 1916, to Mar., 1917. Various paging. 5c. each; 25c. per annum.^c [The publication of this pamphlet has been temporarily discontinued.]

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Important events in radiotelegraphy. Feb. 1, 1916. 25 p.

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a Free distribution confined to Lighthouse Service. Copies bound in full Irish linen may be obtained from Superintendent of Documents, Government Printing Office, for 50 cents each.

^b Merchant Vessels of the United States, 1916, and Seagoing Vessels of the United States, 1916, were also printed under one cover as H. doc. 1382, 61th Cong., 2d sess., and copies may be obtained from the Superintendent of Documents at \$1 each.

^c Issued monthly, and supersedes quarterly supplements to list of Radio Stations of United States. Contains amendments to or changes in Radio Laws and Regulations, items of general interest concerning enforcement of radio laws, and latest information concerning Government, commercial, and special radio stations. Information regarding amateur stations will appear only in annual edition of list of Radio Stations.

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281. A study of inductance of four-terminal resistance standards; by Francis B. Silsbee. July 12, 1916. 50 p. 17 text fig. 15c.
282. Sensitivity and magnetic shielding tests of Thomson galvanometer for use in radiometry; by W. W. Coblentz. June 30, 1916. 26 p. 2 pl. 6 text fig. 10c.
283. Volume effect in silver voltmeter; by E. B. Rosa and G. W. Vinal. July 10, 1916. 13 p. 3 text fig. 5c.

284. Constants of spectral radiation of uniformly heated inclosure or so-called black body, II; by W. W. Coblentz. July 8, 1916. 21 p. 2 text fig. 10c.
285. Summary of experiments on silver voltameter at Bureau of Standards and proposed specifications; by E. B. Rosa and G. W. Vinal. Oct. 5, 1916. 33 p. 2 pl. 2 p. of pl. 15c.
286. Determination of aluminum as oxide; by William Blum. Aug. 10, 1916. 22 p. 2 text fig. 10c.
287. Calculation of Planck's constant C_2 ; by J. H. Dellinger. Aug. 16, 1916. 12 p. 1 text fig. 5c.
288. Wheatstone bridges and some accessory apparatus for resistance thermometry; by E. F. Mueller. Oct. 23, 1916. 17 p. 1 pl. 8 text fig. 10c.
289. Damping of waves and other disturbances in mercury; by M. H. Stillman. Sept. 30, 1916. 6 p. 3 text fig. 5c.
290. A variable self and mutual inductor; by H. B. Brooks and F. C. Weaver. Oct. 12, 1916. 14 p. 2 pl. 5 text fig. 10c.
291. System of remote control for electric testing laboratory; by P. G. Agnew, W. H. Stannard, and J. L. Fearing. Oct. 12, 1916. 19 p. 1 pl. 9 text fig. 10c.
292. International system of electric and magnetic units; by J. H. Dellinger. Oct. 11, 1916. 35 p. 10c.
293. Saccharimetric normal weight and specific rotation of dextrose; by Richard F. Jackson. Oct. 27, 1916. 23 p. 1 text fig. 10c.
294. Freezing point of mercury; by R. M. Wilhelm. Oct. 26, 1916. 7 p. 2 text fig. 5c.
- Title-page and contents for Bulletin, vol. 13, 1916. 4 p. 5c.

Nos. 295 to 305 reprints from Bulletin, volume 14, 1916-17.

295. Determination of degree of uniformity of bars for magnetic standards; by Raymond L. Sanford. Nov. 21, 1916. 16 p. 1 pl. 11 text fig. 10c.
296. Thermoelectric measurement of critical ranges of pure iron; by George K. Burgess and H. Scott. Nov. 22, 1916. 7 p. 3 text fig. 5c.
297. Study of electromagnet moving coil galvanometers for use in alternating-current measurements; by Ernest Weibel. Feb. 17, 1917. 38 p. 2 pl. 7 text fig. 10c.
298. Standard substances for the calibration of viscometers; by Eugene C. Bingham and Richard F. Jackson. Mar. 19, 1917. 30 p. 5 text fig. 5c.
299. An "average eye" for heterochromatic photometry, and comparison of a flicker and an equality-of-brightness photometer; by E. C. Crittenden and F. K. Richtmyer. 29 p. 7 text fig. In press.
300. Emissivity of straight and helical filaments of tungsten; by W. W. Coblentz. 21 p. 1 pl. 4 text fig. In press.
301. Aneroid calorimeter for specific and latent heats; by Nathan S. Osborne. In press.
302. Wave lengths of stronger lines in helium spectrum. In press.
303. Relative sensibility of average eye to light of different colors and some practical applications to radiation problems; by W. W. Coblentz and W. B. Emerson. In press.
304. Calculation of constants of Planck's radiation equation: Extension of theory of least squares. In press.
305. Luminous radiation from black body and mechanical equivalent of light. In press.
- Experimental study of Fahy permeameter. In press.

TECHNOLOGIC PAPERS.

1. Effect of preliminary heating treatment upon drying of clays; by A. V. Bleinger. Dec. 6, 1910. 53 p. 1 pl. 17 text fig. 10c.
- *2. Strength of reinforced concrete beams—Results of tests of 333 beams (1st series); by R. L. Humphrey and L. H. Losse. June 27, 1911. 200 p. 11 pl. 11 charts, 33 text fig. 50c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- *3. Tests of absorptive and permeable properties of Portland cement mortars and concretes, together with tests of damp-proofing and waterproofing compounds and materials; by R. J. Wig and P. H. Bates. Aug. 22, 1911. 127 p. 6 pl. 64 text fig. 20c.
4. Effect of added fatty and other oils upon carbonization of mineral lubricating oils; by C. E. Waters. Aug. 24, 1911. 14 p. 5c.
5. Effect of high-pressure steam on crushing strength of Portland cement mortar and concrete; by R. J. Wig. Sept. 5, 1911. 25 p. 2 pl. 6 text fig. 10c.
6. Determination of chromium, and its separation from vanadium, in steels; by J. R. Cain. Nov. 1, 1911. 6 p. 5c.
7. Testing of clay refractories, with special reference to their load-carrying capacity at furnace temperatures; by A. V. Bleininger and G. H. Brown. Dec. 15, 1911. 78 p. 30 text fig. 15c.
8. Rapid method for determination of vanadium in steels, ores, etc., based on its quantitative inclusion by phosphomolybdate precipitate; by J. R. Cain and J. C. Hostetter. Oct. 26, 1911. 20 p. 2 text fig. 5c.
9. Density and thermal expansion of linseed oil and turpentine; by Henry W. Bearce. Apr. 15, 1912. 27 p. 10c.
10. Melting points of fire bricks; by C. W. Kanolt. June 15, 1912. 17 p. 2 pl. 8 text fig. 5c.
11. Comparison of five methods used to measure hardness; by Ralph P. Devries. July 22, 1912. 27 p. 1 pl. 11 text fig. 5c.
12. Action of salts in alkali water and sea water on cements; by P. H. Bates, A. J. Phillipe, and R. J. Wig. Nov. 1, 1912. 157 p. 8 pl. 45 text fig. 25c.
13. Evaporation test for mineral lubricating and transformer oils; by C. E. Waters. Jan. 1, 1913. 13 p. 5c.
15. Surface insulation of pipes as means of preventing electrolysis; by Burton McCollum and O. S. Peters (with experience and opinions of pipe-owning companies with regard to prevention of electrolysis and soil corrosion by means of insulating coatings). Jan. 5, 1914. 44 p. 3 pl. 2 text fig. 15c.
16. Manufacture of lime; by Warren E. Emley. Feb., 1913. 130 p. 13 pl. 8 text fig. 25c.
17. Function of time in vitrification of clays; by G. H. Brown and G. A. Murray. May 20, 1913. 26 p. 1 pl. 19 text fig. 5c.
- *18. Electrolysis in concrete; by E. B. Rosa, Burton McCollum, and O. S. Peters. Mar. 19, 1913. 137 p. 9 pl. 24 text fig. 35c.
19. Physical testing of cotton yarns; by Walter S. Lewis. Apr. 1, 1913. 31 p. 1 text fig. 10c.
20. Determination of sulphur in illuminating gas; by R. S. McBride and E. R. Weaver. Mar. 7, 1913. 46 p. 14 text fig. 10c.
21. Dehydration of clays; by G. H. Brown and E. T. Montgomery. Apr. 25, 1913. 23 p. 9 text fig. 5c.
- *22. Effect of overfiring upon structure of clays; by A. V. Bleininger and E. T. Montgomery. May 15, 1913. 23 p. 8 text fig. 5c.
23. Technical control of colloidal matter of clays; by H. E. Ashley. Nov., 1911. 118 p. 8 pl. 11 text fig. 15c.
24. Determination of phosphorus in steels containing vanadium; by J. R. Cain and F. H. Tucker. May 17, 1913. 11 p. 5c.
25. Electrolytic corrosion of iron in soils; by Burton McCollum and K. H. Logan. June 12, 1913. 69 p. 10 text fig. 15c.
- *26. Earth resistance and its relation to the electrolysis of underground structures; by Burton McCollum and K. H. Logan. Dec. 20, 1915. 48 p. 17 text fig. 15c.
28. Methods of making electrolysis surveys; by Burton McCollum and G. H. Ahlborn. Aug. 26, 1916. 84 p. 2 pl. 16 text fig. 20c.
29. Variations in results of sieving with standard cement sieves; by R. J. Wig and J. C. Pearson. Aug. 1, 1913. 16 p. 1 text fig. 5c.
30. Viscosity of porcelain bodies; by A. V. Bleininger and Paul Teetor. Nov. 20, 1913. 11 p. 5 text fig. 5c.

31. Some leadless borosilicate glazes maturing at about 1100° C.; by E. T. Montgomery. Dec. 15, 1913. 22 p. 1 text fig. 5c.
32. Special studies in electrolysis mitigation: 2, Electrolysis from electric railway currents and its prevention, experimental test on system of insulated negative feeders in St. Louis; by E. B. Rosa, Burton McCollum, and K. H. Logan. Dec. 27, 1913. 34 p. 2 maps. 10c.
33. Determination of carbon in steel and iron by barium carbonate titration method; by J. R. Cain. Jan. 31, 1914. 12 p. 1 text fig. 5c.
34. Determination of ammonia in illuminating gas; by J. D. Edwards. Mar. 2, 1914. 23 p. 6 text fig. 10c.
35. Combustion method for direct determination of rubber; by L. G. Wesson. Feb. 13, 1914. 11 p. 1 text fig. 5c.
36. Industrial gas calorimetry; by C. W. Waidner and E. F. Mueller. Mar. 1, 1914. 150 p. 18 pl. 13 text fig. 40c.
37. Iodine number of linseed and petroleum oils; by W. H. Smith and J. B. Tuttle. Apr. 28, 1914. 17 p. 7 text fig. 10c.
38. Observations on finishing temperatures and properties of rails; by G. K. Burgess, J. J. Crowe, H. S. Rawdon, and R. G. Waltenberg. Apr. 28, 1914. 63 p. 5 pl. 11 text fig. 35c.
39. Analysis of printing inks; by J. B. Tuttle and W. H. Smith. June 12, 1914. 20 p. 10c.
40. Veritas firing rings; by A. V. Bleininger and G. H. Brown. June 5, 1914. 10 p. 4 text fig. 5c.
41. Lead acetate test for hydrogen sulphide in gas; by R. S. McBride and J. D. Edwards. Aug. 19, 1914. 46 p. 11 pl. 7 text fig. 25c.
42. Standardization of No. 200 cement sieves; by Rudolph J. Wig and J. C. Pearson. July 30, 1914. 51 p. 4 pl. 1 text fig. 10c.
43. Hydration of Portland cement; by A. A. Klein and A. J. Phillips. Apr. 18, 1914. 71 p. 6 pl. 9 text fig. 20c.
45. Study of some recent methods for determination of total sulphur in rubber; by J. B. Tuttle and A. Isaacs. May 5, 1915. 16 p. 5c.
46. Study of Atterberg plasticity method; by Charles S. Kinnison. May 25, 1915. 18 p. 3 text fig. 5c.
47. Value of high-pressure steam test of Portland cements; by R. J. Wig and H. A. Davis. Aug. 18, 1915. 34 p. 2 pl. 4 text fig. 15c.
48. Air analyzer for determining fineness of cement; by J. C. Pearson and W. H. Sligh. Sept. 8, 1915. 74 p. 4 pl. 2 p. of pl. 12 text fig. 20c.
49. Emergent stem correction for thermometers in creosote oil distillation flasks; by R. M. Wilhelm. Aug. 14, 1915. 19 p. 6 text fig. 10c.
50. Viscosity of porcelain bodies high in feldspar; by A. V. Bleininger and C. S. Kinnison. Sept. 25, 1915. 7 p. 4 text fig. 5c.
51. Use of sodium salts in purification of clays and in casting process; by A. V. Bleininger. Sept. 25, 1915. 40 p. 3 pl. 13 text fig. 15c.
52. Electrolysis and its mitigation; by E. B. Rosa and Burton McCollum. Dec. 27, 1915. 143 p. 3 pl. 38 text fig. 30c.
53. Investigation of fusible tin boiler plugs; by George K. Burgess and Paul D. Merica. Oct. 15, 1915. 37 p. 2 pl. 6 p. of pl. 2 text fig. 20c.
54. Special studies in electrolysis mitigation: III, Report on conditions in Springfield, Ohio; by Burton McCollum and G. H. Ahlborn. Feb. 5, 1916. 64 p. 7 litho. 4 pl. 2 text fig. 25c.
55. Special studies in electrolysis mitigation: IV, Preliminary report on electrolysis mitigation in Elyria, Ohio, with recommendations for mitigation; by Burton McCollum and K. H. Logan. Jan. 22, 1916. 49 p. 4 litho. 1 folder, 5 text fig. 20c.
56. Protection of life and property against lightning; by O. S. Peters. Dec. 15, 1915. 127 p. 8 pl. 35c.
57. Difference in weight between raw and clean wools; by Walter S. Lewis. Sept. 28, 1915. 5 p. 5c.
58. Strength and other properties of concretes as affected by materials and methods of preparation; by R. J. Wig, G. M. Williams, and E. R. Gates. June 20, 1916. 172 p. 2 pl. 44 text fig. 35c.

59. Standard test specimens of zinc bronze (Cu 88, Sn 10, Zn 2). Part I.—Preparation of specifications; by C. P. Karr. Part II.—Microstructure; by Henry S. Rawdon. Mar. 15, 1916. 67 p. 8 pl. 1 paster, 8 text fig. 25c.
60. Microstructural changes accompanying annealing of cast bronze (Cu 88, Sn 10, Zn 2); by Henry S. Rawdon. Jan. 25, 1916. 17 p. 4 pl. 1 text fig. 10c.
61. Some foreign specifications for railway materials: Rails, wheels, axles, tires; by G. K. Burgess and P. D. Merica. Apr. 20, 1916. 182 p. 12 text fig. 25c.
62. Modern practice in construction and maintenance of rail joints and bonds in electric railways; by E. R. Shepard. Mar. 10, 1916. 123 p. 6 pl. 4 p. of pl. 5 text fig. 35c.
63. Leakage of currents from electric railways; by Burton McCollum and K. H. Logan. Mar. 14, 1916. 31 p. 15 text fig. 10c.
64. Determination of barium carbonate and barium sulphate in vulcanized rubber goods; by John B. Tuttle. Jan. 21, 1916. 5 p. 5c.
65. Determination of oil and resin in varnish; by E. W. Boughton. Feb. 19, 1916. 32 p. 1 text fig. 10c.
66. Detection of resin in drier; by E. W. Boughton. Jan. 15, 1916. 9 p. 5c.
67. Some qualitative tests for gum arabic and its quantitative determination; by C. E. Waters and J. B. Tuttle. Jan. 31, 1916. 15 p. 5c.
68. Standardization of automobile tire fabric testing; by Walter S. Lewis and Charles J. Cleary. Mar. 17, 1916. 18 p. 1 pl. 6 text fig. 10c.
69. Determination of carbon in steels and irons by direct combustion in oxygen at high temperatures; by J. R. Cain and H. E. Cleaves. Feb. 18, 1916. 10 p. 2 text fig. 5c.
70. Durability of stucco and plaster construction; by R. J. Wig, J. C. Pearson, and W. E. Emley. Jan. 31, 1917. 74 p. 2 pl. 14 p. of pl. 6 text fig. 1 paster. 15c.
71. Effect of certain pigments on linseed oil; by E. W. Boughton. Apr. 13, 1916. 16 p. 2 text fig. 5c.
72. Influence of frequency of alternating or infrequently reversed current on electrolytic corrosion; by Burton McCollum and G. H. Ahlborn. Aug. 15, 1916. 31 p. 1 pl. 5 text fig. 10c.
- *73. Data on oxidation of automobile cylinder oils; by C. E. Waters. May 31, 1916. 20 p. 5 text fig. 5c.
74. Investigation of cartridge-inclosed fuses: Report of Bureau of Standards in case of Economy Fuse & Manufacturing Co. v. Underwriters' Laboratories (Inc.), concerning fire and accident hazard of Economy refillable fuse as compared with approved fuses; by E. B. Rosa, H. B. Brooks, Burton McCollum, W. J. Canada, and F. W. Glading. Dec. 1, 1916. 199 p. 11 pl. 55c.
75. Data on electric railway track leakage; by G. H. Ahlborn. Aug. 22, 1916. 22 p. 7 text fig. 10c.
76. Determination of volatile thinner in oil varnish; by E. W. Boughton. June 21, 1916. 7 p. 5c.
77. Density and thermal expansion of American petroleum oils; by H. W. Bearce and E. L. Peffer. Aug. 26, 1916. 26 p. 4 text fig. 10c.
78. Properties of calcium silicates and calcium aluminates occurring in normal Portland cement; by P. H. Bates and A. A. Klein. 38 p. 4 litho. 8 pl. In press.
79. Properties of some European plastic fire clays; by A. V. Bleininger and H. G. Schurecht. Aug. 24, 1916. 34 p. 4 text fig. 10c.
- *80. Constitution and microstructure of porcelain; by A. A. Klein. Dec. 8, 1916. 38 p. 1 pl. 14 p. of pl. 1 text fig. 25c.
- *81. Liquid-measuring pumps; by F. J. Schlink. Oct. 27, 1916. 27 p. 5 pl. 2 p. of pl. 11 text fig. 15c.
82. Failure of brass: 1, Microstructure and initial stresses in wrought brasses of the type 60 per cent copper and 40 per cent zinc; by Paul D. Merica and R. W. Woodward. Jan. 29, 1917. 72 p. 4 pl. 36 p. of pl. 2 text fig. 25c.
83. Failure of brass. 2, Effect of corrosion on ductility and strength of brass; by Paul D. Merica. Nov. 14, 1916. 7 p. 3 text fig. 5c.

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84. Failure of brass: 3. Initial stress produced by the "burning in" of manganese bronze; by Paul D. Merica and C. P. Karr. Nov. 17, 1916. 7 p. 1 pl. 1 text fig. 5c.
85. Manufacture and properties of sand-lime brick; by Warren E. Emley. Mar. 22, 1917. 41 p. 3 pl. 4 p. of pl. 1 text fig. 10c.
- *86. Resistance of an oil to emulsification; by Winslow H. Herschel. Feb. 17, 1917. 37 p. 1 pl. 7 text fig. 10c.
87. Recovery of paraffin and paper stock from waste paraffin paper; by W. H. Smith. Dec. 15, 1916. 4 p. 5c.
88. Studies on paper pulp; by W. H. Smith. Feb. 9, 1917. 13 p. 5c.
89. Specific gravity balance for gases; by Junius David Edwards. Feb. 23, 1917. 20 p. 2 p. of pl. 4 text fig. 5c.
90. Structure of coating on tinned sheet copper in relation to a specific case of corrosion; by Paul D. Merica. Apr. 21, 1917. 18 p. 6 p. of pl. 1 text fig. 5c.
91. Temperature measurements in Bessemer and open-hearth practice; by George K. Burgess. May 8, 1917. 29 p. 1 paster. 5c.
92. Measurement and specification of physical factors which determine saturation of certain tints of yellow; by Irwin G. Priest and Chauncey G. Peters. 11 p. 3 pl. 5 text fig. In press.
93. Glasses for protecting eyes from injurious radiations; by W. W. Coblenz and W. B. Emerson. May 5, 1917. 14 p. 6 text fig. 5c.
94. Effusion method of determining gas density; by Junius David Edwards. 30 p. 1 pl. 11 text fig. In press.
95. Durability of cement drain tile and concrete in alkali soils. In press. [Supersedes Technologic Paper 44.]

CIRCULARS.

- *2. Measurements of length and area, including thermal expansion. 5th ed. Apr. 30, 1915. 21 p. 5c.
5. Testing of clinical thermometers. 3d ed. 20 p. 1 text fig. In press.
6. Fees for electric, magnetic, and photometric testing. 7th ed. Dec. 30, 1916. 30 p. 5c.
7. Pyrometer testing and heat measurements. 5th ed. Oct. 1, 1913. 19 p. 5c.
8. Testing of thermometers. 2d ed. June 30, 1911. 52 p. 1 text fig. 10c.
9. Testing of glass volumetric apparatus. 8th ed. Mar. 31, 1916. 32 p. 10 text fig. 10c.
11. Standardization of bomb calorimeters. 3d ed. In press.
13. Standard specifications for incandescent electric lamps. 7th ed. Oct. 23, 1915. 14 p. 10c.
14. Analyzed irons and steels, methods of analysis. 5th ed. Mar. 20, 1916. 17 p. 10c.
15. International unit of light. 3d ed. July 1, 1911. 7 p. 5c.
16. Testing of hydrometers. 4th ed. Feb. 23, 1916. 16 p. 1 pl. 1 text fig. 5c.
17. Magnetic testing. 3d ed. Mar. 18, 1916. 50 p. 1 pl. 22 text fig. 15c.
18. Standard gage for sheet and plate iron and steel. 2d ed. July 1, 1911. 4 p. 5c.
- *19. Standard density and volumetric tables. 5th ed. Mar. 30, 1916. 67 p. 15c.
20. Testing of electrical measuring instruments. 2d ed. May 28, 1915. 57 p. 15c.
23. Standardization of electrical practice in mines. July 15, 1910. 93 p. 15c.
25. Standard samples—General information. 6th ed. 16 p. In press.
Standard samples issued or in preparation; Summary of analyses. (Supplement to Circular 25.) 4 p. In press.
26. Analyzed iron and manganese ores, methods of analysis. 3d ed. May 26, 1913. 20 p. 5c.
30. Lime: Its properties and uses. Apr. 15, 1911. 22 p. 5c.
31. Copper-wire tables. 3d ed. Oct. 1, 1914. 76 p. 3 text fig. 20c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2

32. Standards for gas service. 3d ed. Mar. 10, 1915. 197 p. 35c.
33. United States Government specification for Portland cement. 3d ed. Jan. 18, 1917. 43 p. 10 text fig. 10c.
34. Relation of horsepower to kilowatt. 3d ed. May 15, 1915. 16 p. 5c.
35. Melting points of chemical elements. 2d ed. Jan. 1, 1915. 2 p. 5c.
36. Testing and properties of electric condensers. June 30, 1912. 26 p. 1 chart, 2 text fig. 5c.
37. Electric wire and cable terminology. 2d ed. Jan. 1, 1915. 13 p. 15 text fig. 5c.
38. Testing of rubber goods. 3d ed. July 19, 1915. 89 p. 35 text fig. 15c.
- *39. Specifications for and measurement of standard sieves. 1912. 14 p. 5c.
40. Sodium oxalate as standard in volumetric analysis. 2d ed. May 15, 1913. 13 p. 5c.
41. Testing and properties of textile materials. 2d ed. Aug. 27, 1915. 26 p. 10c.
42. Metallographic testing. Sept. 1, 1913. 16 p. 5c.
43. Metric carat. Nov. 1, 1913. 12 p. 5c.
44. Polarimetry. 2d ed. In press.
45. Testing of materials. Nov. 1, 1913. 89 p. 10c.
47. Units of weight and measure; definitions and tables of equivalents. July 1, 1914. 68 p. 15c. [Supersedes miscellaneous publication, "Tables of equivalents of United States customary and metric weights and measures."]
48. Standard methods of gas testing. 2d ed. June 10, 1916. 202 p. 1 pl. 15 text fig. 40c.
49. Safety rules to be observed in operation of electrical equipment and lines. (Part 4 of Proposed national electrical safety code.) 2d ed. May 4, 1915. 50 p. 10c.
50. National standard hose couplings and fittings for public fire service. 2d ed. 34 p. 1 pl. 4 text fig. In press.
51. Measurement of time and tests of timepieces. Dec. 1, 1914. 39 p. 1 pl. 7 text fig. 15c.
52. Regulation of electrotyping solutions. 2d ed. June 28, 1916. 44 p. 1 text fig. 10c.
53. Composition, properties, and testing of printing inks. Mar. 29, 1915. 35 p. 10c.
54. Proposed national electrical safety code. 2d ed. Nov. 15, 1916. 323 p. 16 text fig. 20c.
55. Measurements for the household. Aug. 28, 1915. 149 p. 1 pl. 61 text fig. 15c.
56. Standards for electric service. July 28, 1916. 262 p. 45c.
57. United States standard tables for petroleum oils. Jan. 29, 1916. 64 p. 2 text fig. 15c.
58. Invar and related nickel steels. Apr. 4, 1916. 68 p. 1 pl. 37 text fig. 10c.
59. United States standard Baumé hydrometer scales. Apr. 5, 1916. 13 p. 5c.
60. Electric units and standards. Sept. 25, 1916. 68 p. 15c.
61. Specifications and tolerances for weights and measures and weighing and measuring devices. Nov. 13, 1916. 44 p. 2 text fig. 10c.
62. Specification for and methods of testing soaps. Dec. 16, 1916. 25 p. 5c.
63. Specification of transparency of paper and tracing cloth. May 17, 1917. 8 p. 2 pl. 2 text fig. 5c.
64. Rules and regulations for enforcement of lime-barrel act. Apr. 20, 1917. 7 p. 5c.
65. Gas calorimeter tables. In press.

MISCELLANEOUS.

Annual report of Director, 1916. 165 p. 1 paster. [There are also available copies of annual reports for 1903, 1904, 1906, 1907, 1908, 1912, 1913, 1914, and 1915.]^a

International metric system. (Chart.)

^a Available only from Superintendent of Documents and at price stated. See note on p. 2.

^b Copies of the annual reports of the Director may be obtained from the Superintendent of Documents as follows: 1906, 5c.; 1906, 10c.; 1915, 15c.

- International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.
- First conference on weights and measures of United States. Jan. 16, 17 1905. 46 p. 10c.
- Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.
- Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.
- Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.
- Fifth annual conference on weights and measures of United States. Feb. 25, 26, 1910. 123 p. 15c.
- Sixth annual conference on weights and measures of United States. Feb. 17, 18, 1911. 158 p. 1 text fig. 20c.
- Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.
- Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.
- Ninth annual conference on weights and measures of United States. May 26-29, 1914. 176 p. 1 pl. 8 text fig. 20c.
- Tenth annual conference on weights and measures of United States. May 25-28, 1915. 254 p. 1 paster, 18 text fig. 50c.
- Eleventh annual conference on weights and measures of United States. May 23-26, 1916. 194+44+27 p. 7 pl. 8 p. of pl. 21 text fig. 35c.
- National Bureau of Standards—Description of work of Bureau. 24 p.
- Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan. 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]
- Tolerances and specifications for weights and measures and weighing and measuring devices. 29 p. 2 text fig.
- Some technical methods of testing miscellaneous supplies; by Percy H. Walker. Nov. 15, 1916. 68 p. 3 text fig. 15c.

STEAMBOAT-INSPECTION SERVICE.

Two regular publications are issued by the Steamboat-Inspection Service, as follows:

Report of the Supervising Inspector General. (Annual.)

List of Officers of Merchant Steam, Motor, and Sail Vessels Licensed During the Fiscal Year Ending June 30 for a Period of Five Years. (Annual.)

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors, heretofore published in one volume, are now published as four separate pamphlets, according to the kinds of waters covered by the rules, as follows: (1) Ocean and coast-wise; (2) Great Lakes; (3) Lakes other than the Great Lakes, bays, and sounds; and (4) Rivers.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest available editions of the publications are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General, 1916. 47 p. [There are also available copies of annual reports for 1912 and 1914.]^a

^a The Superintendent of Documents can supply copies of annual reports as follows: 1910, paper 25c., cloth 40c.; 1911, cloth 50c.; 1912, paper 10c., cloth 25c.; 1914, paper 5c.; 1915, paper, 5c.; 1916, paper, 5c.

List of officers of merchant steam, motor, and sail vessels licensed during year ended June 30, 1914, for period of five years. 220 p. [There are also available copies of the list for the year ended June 30, 1913.]

Laws governing Steamboat-Inspection Service. Ed. Nov. 20, 1916. 87 p.

General rules and regulations prescribed by Board of Supervising Inspectors, as amended Jan., 1916. Ed. Nov. 21, 1916:

Ocean and coastwise. 192 p. 8 text fig.

Great Lakes. 154 p. 6 text fig.

Lakes other than Great Lakes, bays, and sounds. 150 p. 6 text fig.

Rivers. 144 p. 6 text fig.

Amendments of steamboat-inspection rules and regulations [adopted by Board of Supervising Inspectors, Jan. 17-Mar. 14, 1917, and approved by Secretary of Commerce]. Mar. 30, 1917. 20 p.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. Sept. 1, 1914. 34 p. 5 text fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.



DEPARTMENT OF COMMERCE
DIVISION OF PUBLICATIONS

LIST OF PUBLICATIONS
OF THE
DEPARTMENT OF COMMERCE
AVAILABLE FOR DISTRIBUTION



16th EDITION
MAY 1, 1918

The use of an asterisk (*) in this pamphlet indicates that the publication is available only from the Superintendent of Documents and at the price stated



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From
United States Government.

NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications.

This pamphlet, which contains a complete list of the publications of the Department available either for free distribution by the Department or by purchase from the Superintendent of Documents, revised and corrected to date of issue, is published once each year. There is also published each month a list of the publications issued by the Department during that month. Persons desiring to have their names placed on the mailing list to receive copies of either the complete list or the monthly list should address the "Chief, Division of Publications, Department of Commerce, Washington, D. C."

The free distribution of many of the publications of the Department is confined to libraries, educational institutions, the press, and commercial organizations. Others may procure them, at prices stated herein, from the "Superintendent of Documents, Government Printing Office, Washington, D. C.," to whom remittances should be sent direct, as his office is not a part of the Department of Commerce. For the convenience of the general public, coupons that are good until used in exchange for Government publications sold by the Superintendent of Documents may be purchased from his office in sets of 20 for \$1. Remittances should be made by coupons, postal money order, express order, or New York draft. Currency may be sent at sender's risk. Postage stamps, defaced or smooth coins, or foreign money positively will not be accepted. The use of an asterisk (*) in this pamphlet indicates that the Department's supply of the publication is entirely exhausted and that copies are available only from the Superintendent of Documents and at the price stated.

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for free copies of publications issued by the Office of the Secretary, the Coast and Geodetic Survey (except Chart Catalogues), and the Bureau of Lighthouses should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for free copies of other publications given in this list should be addressed to the bureaus in which the publications originate. Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Coast and Geodetic Survey. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address and stating specifically the publication or publications received by them. The Department should also be notified promptly when publications are no longer desired.

DAN C. VAUGHAN,
Chief, Division of Publications.

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PUBLICATIONS OF THE DEPARTMENT OF COMMERCE AVAILABLE FOR DISTRIBUTION.

EDITION MAY 1, 1918.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1917. 291 p. 14 litho. 1 pl. 2 p. of pl. 1 text fig. [There is also on hand limited supply of Secretary's report for each of years 1903 to 1916, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated], 1917. 1,083 p. 14 litho. 1 pl. 2 p. of pl. 1 text fig. [There is also on hand limited supply of consolidated reports of Department for each of years 1904, 1905, 1909, and 1911 to 1916, inclusive.]

Annual report of Chief of Appointment Division, 1917. 15 p. [There are also available copies of each annual report from 1910 to 1916, inclusive.]

Annual report of Chief of Division of Publications, 1917. 34 p. [There are also available copies of each annual report from 1907 to 1916, inclusive.]

Department of Commerce: Origin and organization, 1915. 71 p.

Condensed history, duties, and practical operation of Department and its several bureaus and offices, together with laws relating specifically thereto. July 1, 1913. 211 p.

Circulars of Department in effect July 1, 1917. 184 p.

List of publications of Department available for distribution. 16th ed. May 1, 1918. 77 p.

List of publications issued by Department. 4 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

Standardization in construction of freight ships; by E. Platt Stratton. May, 1916. 16 p. 2 text fig. 5c.

Advisory conference on subject of making passenger vessels more secure from destruction by fire. May 3, 1916. 63 p.

Proceedings of conference on automatic sprinklers on vessels. May 22, 1916. 34 p. 2 text fig.

Establishment of load-line regulations. Proceedings of conference held at office of Secretary of Commerce, Sept. 27, 1916. 54 p.

Inland water transportation. 11 p. [Report of Walter Parker, Assistant to the Secretary of Commerce for Inland Water Transportation, for the six months ended Dec. 31, 1917.]

Inland waterway terminal development. Apr. 10, 1918. 10 p. [Report of Walter Parker, Assistant to the Secretary of Commerce for Inland Water Transportation.]

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6,

1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are supplied to applicants without expense so long as the editions allowed for free distribution will permit, and can also be purchased at prices stated in this list from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1890) REPORTS.

- *Agriculture (including cereal production; flour-milling processes; tobacco; meat production). 1149 p. \$1.50.
- *Compendium of Tenth Census of United States, 1890. 1,845 p. \$1.10.
- *—— revised edition, pt. 1, 1885. 1,040 p. 65c.
- *—— revised edition, pt. 2, 1888. 858 p. 55c.
- Cotton production: pt. 1, Mississippi Valley and Southwestern States. 924 p. \$1.30.
- pt. 2, eastern Gulf, Atlantic, and Pacific States. 848 p. \$1.30.
- Defective, dependent, and delinquent classes of population (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p. 75c.
- *Forests of North America, 1884. 622 p. \$1.25.
- *History and present condition of fishery industries. 25c.
- *Manufactures (including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass). 1,248 p. \$1.50.
- *Mining industries (exclusive of precious metals). 1,064 p. \$2.
- Mining laws and regulations: United States, State, Territorial, and local. 716 p. \$1.10.
- *Mortality and vital statistics: pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p. \$1.20.^a
- *—— pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p. \$1.60.^a
- *Plates and diagrams accompanying part 2 of report on mortality and vital statistics, 1886. 65c.
- *Newspaper and periodical press; Alaska; seal islands; shipbuilding. 1,122 p. \$1.60.
- *Petroleum, coke, and building stones. 872 p. \$1.75.
- *Population: By States, counties, and minor civil divisions, with distinction of race, sex, age, nativity, and occupations, together with summary tables relating to newspapers and periodicals; public schools; illiteracy; the dependent, defective, and delinquent classes. 1,054 p. \$1.50.
- *Power and machinery employed in manufactures, and ice industry of United States. 666 p. 85c.
- *Precious metals, statistics and technology of. 558 p. \$1.

^a Available only from Superintendent of Documents and at price stated. See note on page 2.

^a The Superintendent of Documents can supply copies of pts. 1 and 2 in sets at \$3.25 per set.

- *Social statistics of cities: pt. 1, New England and Middle States. (Includes streets, street railways, public buildings and works, sanitation, government schools, and commerce and industry.) 924 p. \$1.50.
- *—— pt. 2, Southern and Western States, 1880. 850 p. \$1.35.
- *Transportation agencies in United States. 870 p. \$1.25.
- *Valuation, taxation, and public indebtedness. 920 p. \$1.35.
- *Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts. 792 p. \$1.10.
- *Water power of United States, 1885: pt. 1. 874 p. \$1.25.
- *—— 1887: pt. 2. 788 p. \$1.

ELEVENTH CENSUS (1890) REPORTS.

- *Abstract. 312 p. 25c.
- *Agriculture, irrigation, and fisheries. 946 p. \$1.50.
- *Agriculture by irrigation. 336 p. 80c.
- *Alaska, population and resources of. 294 p. \$1.15.
- *Annual report of Superintendent of the Census, 1889, 5c.; 1890, 5c.; 1895, 5c.; 1896, 5c.; 1897, 5c.
- Churches. 840 p. \$1.10.
- *Compendium: pt. 1, Population; dwellings and families; Alaska. 1,098 p. \$1.15.
- *—— pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1,070 p. \$1.10.
- *—— pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians taxed and not taxed. 1,158 p. \$1.05.
- *Crime, pauperism, and benevolence in United States: pt. 1, Analysis. 420 p. 70c.
- *—— pt. 2, General tables. 1,048 p. \$1.
- Education. 149 p.
- *Farms and homes, proprietorship, and indebtedness in United States, 1896. 658 p. \$1.10.
- *Indians taxed and not taxed. 692 p. \$2.35.
- *Insane, feeble-minded, deaf and dumb, and blind. 768 p. \$1.10.
- *Insurance business: pt. 1, Fire, marine, and inland insurance. 1,138 p. \$1.
- *—— pt. 2, Life insurance. 490 p. 70c.
- *Manufacturing industries in United States: pt. 1, Totals for States and industries. 1,002 p. \$1.
- *—— pt. 2, Statistics of cities. 827 p. 95c.
- *—— pt. 3, Selected industries. 733 p. 85c.
- *Mineral industries. 874 p. \$1.50.
- *Occupations of population of United States. (Preliminary report.) 127 p. 15c.
- *Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; foreign parentage; conjugal condition; school, militia, and voting ages; dwellings and families; Indians; Alaska. 1,181 p. \$1.35.
- *—— pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1,140 p. \$1.10.
- *Population of United States by minor civil divisions as returned at Eleventh Census, June 1, 1890. 60c.
- Real estate mortgages. 956 p. \$1.15.
- *Social statistics of cities in United States. 146 p. 50c.
- *Statistical atlas of United States based upon results of Eleventh Census. 70 p. 63 pl. \$4.
- Textiles. 240 p.

- *Transportation business in United States: pt. 1, Transportation by land. 875 p. 95c.
- *—— pt. 2, Transportation by water. 532 p. 70c.
- *Vital and social statistics: pt. 1, Analysis and rate tables. 1,077 p. \$1.40.
- *—— pt. 2, Cities of 100,000 population and upward. 1,191 p. \$1.35.
- *—— pt. 3, Statistics of deaths. (Death rates, sex, color, age, cause.) 1,057 p. \$1.
- *—— pt. 4, Statistics of deaths. (Sex, age, color, nativity, parentage, marital condition, occupation, cause.) 1,039 p. \$1.
- *Vital statistics covering period of six years ended May 3, 1890: Boston and Philadelphia. 278 p. 75c.
- *—— District of Columbia and Baltimore. 250 p. 75c.
- *—— New York and Brooklyn. 538 p. \$1.
- *Wealth, debt, and taxation: pt. 1, Public debt. 902 p. \$1.20.
- *—— pt. 2, Valuation and taxation. 662 p. 80c.

TWELFTH CENSUS (1900) REPORTS.

Abstract. 470 p. 30c.

Agriculture: pt. 1, Farms, live stock, and animal products. 1,003 p. \$2.

- *—— pt. 2, Crops and irrigation. 880 p. \$2.
- *Annual report of Director of the Census, 1899, 5 p., 5c.; 1900, 21 p., 5c.; 1901, 14 p., 5c.
- *Employees and wages, 1900. 289 p. \$2.
- *Manufactures: pt. 1, United States by industries. 1,039 p. \$2.
- *—— pt. 2, States and Territories. 1,111 p. \$2.
- *—— pt. 3, Selected industries, including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleomargarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1,143 p. \$2.
- *—— pt. 4, Selected industries, including iron and steel; tin and terneplate; lead, copper, and zinc smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycle; and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products; patents in relation to manufactures. 996 p. \$2.
- Textiles (monograph). 258 p. 50c.
- *Population: pt. 1, States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in United States. 1,236 p. \$2.
- *—— pt. 2, Ages, in detail; school, militia, and voting ages; conjugal condition; school attendance; illiteracy; inability to speak English; occupations; dwellings and families; proprietorship of homes. 978 p. \$2.
- *Population of United States by States and Territories, counties, and minor civil divisions. [From Twelfth Census, 1900, vol. 1, Population, pt. 1.] 480 p. 50c.
- *Statistical atlas, 1900. 298 p. 207 pl. 91 text fig. \$4.
- Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1,162 p.
- *Vital statistics: pt. 1, Analysis and ratio tables. 1,009 p. \$2.
- *—— pt. 2, Statistics of deaths. 1,061 p. \$2.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

THIRTEENTH CENSUS (1910) REPORTS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

*Population: vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1,160 p. \$1.50.

— vol. 3, Same—Nebraska to Wyoming, Alaska, Hawaii, and Porto Rico. 1,225 p. \$1.50.

*Agriculture: vol. 5, General report and analysis. 927 p. \$1.40. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 88 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 146 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.]

— vol. 6, Reports by States, with statistics for counties—Alabama to Montana. 977 p. \$1.25.

— vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1,013 p. \$1.35.

Manufactures: vol. 9, Reports by States, with statistics for principal cities. 1,404 p. \$1.65.

— vol. 10, Reports for principal industries. 975 p. \$1.25. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motorcycles, and parts; 6 p. Blast furnace, steelworks and rolling mill, wire, and tinplate and terneplate industries; 80 p.^a Boots and shoes, including cut stock and findings; 20 p.^a Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products; general chemical industry; bone, carbon, and lampblack; dyestuffs and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p.^a Flour-mill and gristmill products; 24 p.^a Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 19 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 19 p.^a Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p.^a Paper and wood pulp; 16 p.^a Petroleum refining; 10 p.^a Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 19 p. Silk manufactures [also included in Textiles]; 25 p. Slaugh-

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a Out of print.

tering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p.^a Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 18 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p.]

Mining: vol. 11, Mines and quarries. 369 p. 65c.

Abstract of the Census with State supplements.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries).

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:

Introduction:

Population: 1. Number and distribution of inhabitants. 2. Color or race; nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native population. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries. \$1.

State supplements.

These supplements vary in size from 37 pages (District of Columbia) to 225 pages (New York).

Alabama, 20c.; Alaska, 10c.;* Connecticut, 20c.; District of Columbia, 10c.;* Georgia, 25c.; Hawaii, 10c.; Idaho, 15c.; Illinois, 30c.; Indiana, 25c.; Iowa, 25c.; Kansas, 25c.; Kentucky, 25c.; Louisiana, 20c.; Maine, 15c.; Maryland, 15c.; Massachusetts, 20c.; Michigan, 25c.; Minnesota, 25c.; Mississippi, 15c.; Missouri, 25c.; Montana, 20c.; Nebraska, 20c.; Nevada, 15c.; New Hampshire, 15c.; New Jersey, 20c.; New Mexico, 15c.; New York, 35c.; North Carolina, 20c.; North Dakota, 15c.;

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a Out of print.

Ohio, 30c.; Oklahoma, 20c.; Oregon, 20c.; Pennsylvania, 30c.; Porto Rico, 15c.; Rhode Island, 15c.; South Carolina, 15c.; Tennessee, 20c.; Texas, 40c.; Utah, 15c.; Vermont, 15c.; Virginia, 25c.; Washington, 20c.; West Virginia, 15c.; Wisconsin, 20c.; and Wyoming, 15c.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States, and where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p. Color or race, nativity, parentage, sex, and males of voting and militia ages [reprint of chap. 2 of Abstract]; 43 p. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. Country of origin of population of foreign birth and parentage and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p.

Agriculture: Farms and farm property; 20 p. General farm crops; 28 p. Live stock on farms and elsewhere; 34 p. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. Crops; 59 p. 10c. Live-stock products, and domestic animals sold or slaughtered on farms; 16 p.

Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p.

Manufactures: Manufactures, by States, cities, and industries; 96 p.

Mines: Statistics of mining, for industries and States; 24 p.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

Center of population and median lines, continental United States. 8 p. 5c.

Cities and their suburbs. 6 p.

*Iron mines. 25 p. 5c.

*Irrigation: Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas. 28 p. 5c.

Occupation statistics [summary of vol. 4 of final reports]. 107 p. 20c.

Population of cities of 2,500 inhabitants and over. 46 p.

Population of counties and equivalent subdivisions. 30 p. 5c.

Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p. 65c.

Population of incorporated places. 111 p. 15c.

*Statistics of manufactures for metropolitan districts, 1909. 77 p. 15c.

Total population and area of the United States, by States and Territories. 16 p. 5c.

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

Age of farmers, by color of operator, character of tenure, and size of farm. 35 p. 10c.

Chinese and Japanese in the United States. 50 p. 15c.

Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.] 5c.

Population of New York City, by enumeration districts. 23 p. 5c.

Stability of farm operators, or term of occupancy of farms. 22 p. 5c.

Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p. 5c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

INTERCENSAL REPORTS (1900-1917).

[See also publications listed under various headings, pp. 13 to 19.]

Benevolent institutions: 1904, 335 p., 50c.; 1910, 411 p., 75c.

Blind and deaf: 1900. 274 p. 60c.

Blind population of United States: 1910. 342 p. 75c.

*Central electric light and power stations: 1902, 185 p., 50c.; 1907, 198 p., 70c.

Central electric light and power stations and street and electric railways: 1912. 440 p. \$1.

Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p. \$1.10.

Deaf mutes in United States: Analysis of statistics of 1910, with summary of State laws to Jan. 1, 1918. 218 p. In press.

Electrical industries: 1902. 822 p. \$1.65.

Express business in United States: 1907. 28 p. 10c.

Financial statistics of cities having population of over 30,000: 1905, 372 p., 50c.; 1906, 358 p., cloth, 85c., paper, 50c.; 1907, 548 p., cloth, 85c., paper, 65c.;* 1908, 354 p., cloth, 75c.;* 1909, 279 p., 55c.; 1910, 308 p., 60c.; 1911, 401 p., 75c.; 1912, 410 p., 75c.;* 1915, 338 p.; 1916, 375 p., \$1; 1917, in press.

Financial statistics of States: 1915, 125 p., 50 c.; 1916, 127 p., 20c.; 1917, in press.

Fire departments of cities having a population of over 30,000: 1917. In press.

Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p. 70c.

General statistics of cities having population of over 30,000: 1909, pt. 1, Sewers and sewer service; pt. 2, Refuse disposal service; pt. 3, Street-cleaning service; pt. 4, Dust-prevention service; pt. 5, Highways and general highway service; pt. 6, Statistics of salaries and wages. 197 p. 45c.

— 1915, pt. 1, Governmental organizations; pt. 2, Police departments; pt. 3, Liquor traffic; pt. 4, Municipally owned water-supply systems and water rates. 185 p. 55c.

— 1916, pt. 1, Parks; pt. 2, Playgrounds; pt. 3, Museums and art galleries; pt. 4, Zoological collections; pt. 5, Music and entertainments; pt. 6, Swimming pools and bathing beaches; pt. 7, Other features of the recreation service. 88 p. 20c.

Indians in United States and Alaska: 1910. 285 p. 65c.

Insane and feeble-minded in institutions: 1904, 238 p., cloth, 60c.; paper, 25c.; 1910, 217 p., 55c.

Manufactures: 1905, pt. 1, United States by industries. 1,030 p. \$1.35.

*— pt. 2, States and Territories. 1,244 p. \$1.50.

*— pt. 3, Selected industries. 968 p. \$1.30.

*— pt. 4, Selected industries. 856 p. \$1.75.

Marriage and divorce: 1867-1906, pt. 1, 535 p., \$1; pt. 2, General tables, 850 p., \$1.50.

Mines and quarries: 1902. 1153 p. \$1.50.

Mortality: 1900-1904, 1,003 p., \$1.25; 1905, 360 p., \$1; 1906, 486 p., 80c.; 1907, 538 p., \$1.25; 1908, 706 p., \$1.10;* 1909, 870 p., \$1.25; 1910, 611 p., 90c.;* 1911, 572 p., \$1; 1912, 382 p., 75c.; 1913, 631 p., 90c.;* 1914, 714 p., \$1; 1915, 707 p., \$1; 1916, in press.

Negro population: 1790-1915. In press.

Paupers in almshouses: 1904, 216 p., cloth, 60c.; paper, 25c.; 1910, 141 p., 50c.

Plantation farming in United States. 22 p. 10c.

*Prisoners and juvenile delinquents, 1904. 295 p. Paper, 40c.; cloth, 70c.

Prisoners and juvenile delinquents: An analysis of statistics of 1910. In press.

*Religious bodies: 1906, pt. 1, Summary and general tables, 576 p., \$1; pt. 2, Separate denominations: History, description, and statistics, 670 p., \$1.

Specified sources of municipal revenues of cities having a population of over 30,000; 1917. In press.

*Street and electric railways, 1902, 452 p., 75c.; 1907, 576 p., \$1.10.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- Telephones and telegraphs: 1902. 184 p. Cloth, 75c.
 Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p., 55c.
 Telephones and telegraphs and municipal electric fire-alarm and police-patrol signaling systems: 1912. 208 p. 50c.
 Transportation by water: 1906. 240 p. 90c.
 *Wealth, debt, and taxation, 1900-1904. 1,246 p. \$2.
 ——— 1913, vol. 1, 886 p., \$1.25; vol. 2, 756 p., \$1.

INTERCENSAL BULLETINS (1900-1917).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects. Miscellaneous unnumbered bulletins and pamphlets issued by the Bureau of the Census are listed on pages 18-19.

Miscellaneous.

- Age statistics, discussion: 1880, 1890, 1900-13. 53 p. 10c.
 Blind population of United States: 1910-130. 52 p. 15c.
 Central electric light and power stations and street and electric railways: 1912-124. 113 p. 25c.
 *Child labor in District of Columbia: Twelfth Census, 1900-68. 21 p. 10c.
 *Child labor in United States: Twelfth Census, 1900-69. 200 p. 25c.
 Chinese and Japanese in United States: 1910-127. 50 p. 15c.
 Commercial valuation of railway operating property in United States: 1904-21. 88 p. 10c.
 Cotton ginned in United States: Crops of 1899 to 1902, inclusive-2, 46 p., 5c.; 1899 to 1903-10, 10c.;* 1900 to 1904-19, 10c.*
 Cotton production: 1905^a-40, 72 p., 10c.; 1906-76, 68 p., 10c.; 1907-95, 58 p., 15c.; 1908-100, 63 p., 15c.;* 1909-107, 64 p., 10c.; 1910^a-111, 66 p., 15c.; 1911-114, 61 p., 10c.; 1912-116, 63 p., 10c.; 1913-125, 79 p., 15c.
 Cotton production and distribution: 1914-15-131, 102 p., 10c.; 1915-16-134, 99 p., 20c.; 1916-17-135, 144 p., 15c.
 Cotton supply and distribution for year ended Aug. 31, 1905-25, 15 p., 5c.; 1906-63, 25 p., 10c.;* 1907-90, 26 p., 10c.; 1908-97, 40 p., 15c.; 1909-106, 32 p., 10c.; 1910-110, 32 p., 5c.; 1911-113, 31 p., 10c.; 1912-115, 31 p., 10c.; 1913-117, 40 p., 10c.; 1914-128, 30 p., 10c.
 Deaf and dumb population of United States: 1910. 8 p. 5c.
 *Discussion of increase of population: 1903-4. 63 p. 10c.
 *Earnings of wage earners (a study based on census of manufactures, 1905)-93. 179 p. 25c.
 Electrical industries of Porto Rico: 1907-99. 29 p. 10c.
 *Estimates of population: 1904, 1905, 1906-71, 28 p., 10c.; 1910-1914-122, 24 p., 5c.
 Estimates of population of larger cities of United States in 1901-1903-7. 21 p.
 Executive civil service of United States, statistics of employees: 1904-12, 239 p., 25c.; 1907-94, 164 p.
 Financial statistics of cities having population of 8,000 to 25,000: 1903-45. 231 p. 25c.

^aAvailable only from Superintendent of Documents and at price stated. See note on p. 2.

*The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

- Financial statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p. 40c.
- Financial statistics of cities having population of over 30,000: 1904—50, 209 p., 25c.; 1907 (abstract of annual report)—105, 94 p., 15c.; 1912—118, 83 p., 15c.; 1913—126, 73 p., 15c.; 1915—132, 117 p., 25c.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p. 5c.
- Illiteracy in United States (study based on reports of Twelfth and preceding Censuses)—26. 54 p. 10c.
- Increase of population: 1890 to 1900, discussion of—4. 63 p. 10c.
- Industrial districts: 1905. Manufactures and population—101. 81 p. 15c.
- Insane and feeble-minded in institutions: 1910—119. 99 p. 20c.
- Insular and municipal finances in Porto Rico for fiscal year 1902-3—24. 31 p. 5c.
- *Irrigation in United States: 1902—16. 92 p. 10c.
- Marriage and divorce: 1887-1906—96. 71 p. 15c.
- Mineral industries of Porto Rico: 1902—6. 18 p. 15c.
- Mines and quarries: 1902—9. 59 p. 10c.
- Mortality statistics: 1908—104, 133 p., 20c.; 1909—108, 138 p., 20c.;* 1910—109, 191 p., 30c.; 1911—112, 142 p., 25c.*
- Municipal electric fire-alarm and police-patrol systems: 1902—11. 33 p. 10c.
- Negroes in the United States: 1910—129. 207 p. 35c.
- Paupers in almshouses: 1910—120. 99 p. 20c.
- Population of Oklahoma and Indian Territory: 1907—89. 43 p. 15c.
- Prisoners and juvenile delinquents: 1910—121. 130 p. 15c.
- Proportion of children in United States (study based on reports of Twelfth and preceding Censuses)—22. 27 p. 5c.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding Censuses)—14. 51 p. 10c.
- Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p. 20c.
- *Street and electric railways, 1912—3. 193 p. 5c.
- Supervisors districts for Thirteenth Census: 1910—98. 19 p. 15c.
- Teachers, statistics (study based on reports of Twelfth and preceding Censuses)—23. 20 p. 5c.
- Telegraph systems: 1907—102. 47 p. 25c.
- Telephones and telegraphs: 1902—17, 49 p., 10c.; 1912—123, 26 p., 10c.
- Transportation by water: 1906. United States—91. 57 p. 10c.
- Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p. 10c.

Wealth, debt, and taxation.

The statistics presented in these bulletins are reproduced in Volumes I and II of the report on Wealth, Debt, and Taxation: 1913.

Abstract of special bulletins: 1913. 63 p. 10c.

Assessed valuation of property and amounts and rates of levy: 1860-1912. 176 p. 35c.

County and municipal indebtedness: 1913, 1902, and 1890; and sinking-fund assets, 1913. 228 p. 25c.

County revenues, expenditures, and public properties: 1913. 338 p. 50c.

Estimated valuation of national wealth: 1850-1912. 20 p. 10c.

*Municipal revenues, expenditures, and public properties: 1913. 378 p. 70c.

National and State indebtedness and funds and investments: 1870-1913. 203 p. 40c.

National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1913. 44 p. 10c.

Taxation and revenue systems of State and local governments: 1913. 275 p. 50c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

- Agricultural implements—75. 31 p. 10c.
- Automobiles and bicycles and tricycles—66. 37 p. 10c.
- Boots and shoes, leather, and leather gloves and mittens—72. 81 p. 15c.
- Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p. 15c.
- Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p. 10c.
- Carriages and wagons and steam and street railroad car industry—84. 75 p. 15c.
- Chemicals and allied products—92. 124 p. 20c.
- Copper, lead, and zinc, smelting and refining—86. 32 p. 10c.
- *Coke—65. 57 p. 15c.
- Electrical machinery, apparatus and supplies—73. 73 p. 20c.
- Glass and clay products—62. 107 p. 15c.
- Iron and steel and tin and terne plate—78. 105 p. 15c.
- Lumber and timber products—77. 69 p. 20c.
- Metal-working machinery—67. 18 p. 10c.
- Musical instruments, attachments, and materials—82. 34 p. 10c.
- *Paper and wood pulp—80. 43 p. 10c.
- Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p. 10c.
- Petroleum refining—70. 57 p. 15c.
- Power employed in manufactures—88. 27 p. 10c.
- Printing and publishing—79. 133 p. 20c.
- Shipbuilding—81. 29 p. 10c.
- *Slaughtering and meat packing, manufactured ice and salt—83. 83 p. 15c.
- *Textiles—74. 212 p. 30c.
- Tobacco—87. 33 p. 10c.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

- *United States—57. 93 p. 15c.
- Alabama—43. 23 p. 10c.
- Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p. 10c.
- California, Oregon, and Washington—49. 73 p. 10c.
- Colorado, Idaho, Nevada, and Utah—37. 49 p. 10c.
- Connecticut—42. 39 p. 10c.
- Delaware—31. 15 p. 10c.
- Florida—33. 17 p. 10c.
- Georgia—55. 23 p. 10c.
- Illinois—52. 53 p. 10c.
- Indiana—38. 37 p. 10c.
- Iowa—32. 27 p. 10c.
- Kansas—28. 25 p. 10c.
- Kentucky and Tennessee—47. 45 p. 10c.
- Louisiana, Mississippi, and Texas—48. 57 p. 10c.
- Maine—51. 25 p. 10c.
- Maryland and District of Columbia—27. 33 p. 10c.
- Massachusetts—53. 79 p. 10c.

Michigan—18. 35 p. 10c.
 Minnesota—46. 27 p. 10c.
 Missouri and Arkansas—35. 47 p. 10c.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p. 10c.
 Nebraska—29. 19 p. 10c.
 New Hampshire and Vermont—41. 35 p. 10c.
 New Jersey—54. 53 p. 10c.
 New York—59. 101 p. 15c.
 North Carolina and South Carolina—39. 37 p. 10c.
 Ohio—58. 61 p. 10c.
 Pennsylvania—60. 81 p. 15c.
 Rhode Island—36. 29 p. 5c.
 Virginia and West Virginia—44. 43 p. 10c.
 Wisconsin—56. 39 p. 10c.

Manufactures, census of 1914—Special industries.

This series of pamphlets presents for 40 industries the statistics compiled by the Bureau of the Census from the returns of the census of manufactures for 1914, as follows:

Agricultural implements.	Needles and pins and hooks and eyes.
Automobiles, including bodies and parts.	Oilcloth and linoleum.
Brass, bronze, and copper products.	Paper and wood pulp.
Butter, cheese, and condensed milk.	Patent and proprietary medicines and compounds, and druggists' preparations.
Buttons, manufacture of.	Petroleum refining.
Canning and preserving.	Power laundries.
Carriages and wagons.	Printing and publishing.
Cast-iron pipe.	Rice cleaning and polishing.
Chemicals.	Rubber industry.
Clothing, manufacture of.	Silk industry.
Cotton manufactures.	Slaughtering and meat packing.
Electrical machinery, apparatus, and supplies.	Soap industry.
Engines and machinery.	Steam and electric cars and railroad repair shops.
Flour-mill and grist-mill products.	Sugar industry.
Gas, manufacture of.	Textiles, including cordage and twine, jute goods, and linen goods; flax and hemp, dressed; fur-felt hats; dyeing and finishing textiles; haircloth; mats and matting.
Glass, manufacture of.	Turpentine and rosin.
Glucose and starch industry.	Wool manufactures.
Hosiery and knit goods.	
Ice, manufactured.	
Iron and steel.	
Leather industry.	
Motorcycles, bicycles, and parts.	
Musical instruments, including phonographs, graphophones, and talking machines.	

Manufactures, census of 1914—States.

This series of pamphlets presents the general statistics for the various States and the District of Columbia gathered at the census of manufactures for 1914, with comparative figures for previous censuses. The statistics are presented in three sections: General statistics, showing for the principal industries the number of persons engaged, prevailing hours of labor, location of establishments, character of ownership, etc.;

special statistics, giving detailed data for the principal industries of the States; and general tables, in which are given a comparative summary of all industries combined and specified industries for the State and for cities of 10,000 inhabitants or more for the census years 1904, 1909, and 1914.

Manufactures, Census of 1914—Miscellaneous.

Abstract of census of manufactures, 1914. 728 p.

General tables for United States, by geographic divisions, States, and industries, 1914, 1909, 1904, and 1899. 26 p.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

1. Pulp-wood consumption: 1908, 12 p., 5c.;* 1910, 10 p., 5c.;* 1911, 10 p., 5c.
2. Lumber, lath, and shingles: 1908, 57 p., 10c.;* 1909, 63 p., 5c.;* 1910, 45 p., 5c.; 1911, 45 p., 5c.*
3. Slack cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.;* 1909, 14 p., 5c.;* 1911, 8 p., 5c.
- 4.^a Tanbark and tanning extracts: 1907, 10 p., 5c.; 1908, 10 p., 5c.
4. Excelsior: 1911. 4 p. 5c.
5. Veneers: 1907, 9 p., 5c.; 1908, 13 p., 5c.; 1910, 6 p., 5c.
6. Tight cooperage stock: 1907, 11 p., 5c.; * 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1911, 12 p., 5c.
7. Wood distillation: 1907, 8 p., 5c.; 1911, 6 p.
8. Cross-ties purchased: 1907, 6 p., 5c.; 1908, 8 p., 5c.; 1909, 11 p., 5c.; 1911, 8 p., 5c.
9. Poles purchased: 1907, 8 p., 5c.; 1908, 8 p., 5c.; 1909, 14 p., 5c.; 1910, 7 p., 5c.; * 1911, 7 p., 5c.
- 10.^b Forest products of United States: 1907, 122 p., 5c.;* 1908, 137 p., 15c.; 1909, 178 p., 15c.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a This pamphlet was not issued for 1910 and 1911.

^b No. 10 is a consolidation, without change, of Nos. 1 to 9.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish. The Spanish edition is now exhausted. The titles of the English reports are as follows:

- *Vol. I, Geography, history, population. 620 p. \$1.
- *Vol. II, Population. 1048 p. 75c.
- *Vol. III, Mortality, defective classes, education, families and dwellings. 740 p. 75c.
- *Vol. IV, Agriculture, social, and industrial statistics. 638 p. \$1.

In addition to the English reports, three bulletins of the following titles, compiled from these reports, in English only, are available:

- *1. Population of Philippines. 100 p. 10c.
- *2. Climate of Philippines. 103 p. 10c.
- 3. Volcanoes and seismic centers of Philippine Archipelago. 80 p. 10c.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand of the United States for information regarding Cuba, the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

- *Cuba: Population, history, and resources: 1907 (compendium). 275 p. 50c.

Vital statistics.

Birth statistics for the registration area of United States: 1915, 78 p., 20c.; 1916, in press.

- *Extension of registration area for births and deaths, practical example of cooperative census methods as applied to State of Pennsylvania, 1906. 51 p. 10c.

Federal registration service of United States: Its development, problems, and defects. 86 p. 7 text fig. 10c.

Index of joint causes of death: 1914. 308 p.

International classification of causes of sickness and death: 1910. 146 p. 25c.

Manual of international list of causes of death: 1917. In press.

Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p. 10c.

Mortality from cancer and other malignant tumors in registration area of United States: 1914. 212 p.

Physicians' pocket reference to international list of causes of death: 1917. In press.

Practical registration methods: 1903. 29 p. 5c.

Tuberculosis in United States: 1908. 67 p. 15c.

United States life tables, 1910. 65 p. 75c.

MISCELLANEOUS.

Annual report of Director, 1917.^a 44 p.

American census taking. 34 p.

- *Census Office and coordination of statistics. 43 p. 10c.

^a Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a The Superintendent of Documents can supply copies of annual reports for each year since 1903, with the exception of 1911, 1914, 1915, and 1916, at 5 cents each.

- *Collaboration in Federal and State statistical work. 73 p. 5c.
- Comparative financial statistics of cities under council and commission government. 1913 and 1915. 15 p. 5c.
- Cotton-ginning reports. [Issued in card form (4 by 6 inches) at intervals during cotton-ginning season.]
- Cotton production in United States, crop of 1915. 28 p. 5c.
- Federal estimates of population and Federal supervision of local censuses. (Circular 4.) 15 p.
- History and growth of United States census: 1790-1890. 967 p. 70c.
- *Index to occupations, alphabetical and classified. 414 p. 75c.
- Leaf tobacco—Report on quantity held by manufacturers and dealers Apr. 1, 1915. 22 p. 5c.
- List of Bureau of Census publications: 1790-1916. 124 p.
- *Official register, 1917. 896 p. \$1.50.
- *Rank of several States in population, value of crops, etc., census of 1900 and 1910. 2 p. 5c.
- Special census of population of Hamtramck, Mich., June 25, 1915. 16 p. 5c.
- St. Clair Heights, Mich., Nov. 18, 1915. 4 p.
- Tulsa, Okla., Apr. 15, 1915. 16 p. 1 map. 10c.
- El Paso, Tex., Jan. 15, 1916. 7 p.
- Highland Park, Mich., Nov. 15, 1915. 8 p. 1 text fig.
- Shreveport, La., Feb. 15, 1917. 8 p.
- Standard form for reporting financial statistics of public schools: 1911. 28 p.
- Statistical atlas of United States: 1914. 602 p. 503 pl. 99 text fig. \$2.50.
- Stocks of leaf tobacco and the American production, imports, exports, and consumption of tobacco and tobacco products: 1917. In press.
- Study of cartage costs in city of Washington. 14 p. 5c.
- Summary of State laws relating to care of dependent classes: 1911. 346 p. 40c.
- *Table of illiteracy in foreign countries. 4 p. 5c.
- Tentative program of Bureau of the Census: 1916-1919. 14 p.
- The story of the census: 1790-1916. 38 p. 10c.
- Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p. 5c.
- Uniform municipal accounting: 1906. 121 p. 25c.
- Work of Permanent Census Bureau: 1902-1913. 31 p. 5c.

COAST AND GEODETIC SURVEY.

In addition to the Annual Report of the Superintendent detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of astronomy, geodesy, topography, hydrography, terrestrial magnetism, the tides and related subjects, charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications are furnished without charge by the Division of Publications, Department of Commerce, and many of them, and also many of those of which the stock for general distribution is exhausted, may be purchased from the Superintendent of Documents, Government Printing Office, at the prices stated in this list.

For convenient identification future publications and revised editions of former publications of the Survey will have a serial number on the upper left-hand corner of cover and title-page, which should be referred to when copies of a publication bearing a serial number are requested.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in coast line or in depths in channels and harbors, and information relating to terrestrial

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey prior to 1909 may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at all depositories of public documents and at many public libraries. The List of Publications issued by the Department contains only those publications available for distribution at the present time.

Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots, Inside Route Pilots, and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes 658 charts on different scales, for general or local use, covering the coasts of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and a volume of coast-pilot notes relating to Hawaii.

Inside Route Pilots have been published covering the navigable waters from New York to Key West, Key West to New Orleans, and the coast of New Jersey. Similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1916, to June 30, 1917. 227 p. 3 pl. 4 p. of pl. 47 litho. \$1. [There is also available a limited supply of annual reports for 1908 to 1915, inclusive.]

GEODESY.

Observations of eclipse of sun on Aug. 7, 1869, made by parties of Survey at following principal stations: Bristol, Tenn., in charge of R. D. Cutts; Shelbyville, Ky., in charge of J. Winlock and G. W. Dean; Springfield, Ill., in charge of C. A. Schott, under immediate direction of Superintendent of Survey; Des Moines, Iowa, in charge of J. E. Hilgard; and Kohnkux, Chilkat River, Alaska, in charge of G. Davidson. Report for 1869, app. 8, p. 116-198, illustrated by woodcuts, 3 pl. 16 fig. 1 map, 2 diag.

* The Superintendent of Documents can supply copies of annual reports for 1851 to 1916, except 1896, at the following prices: 1851, pt. 1, 45c.; 1851, pt. 2, 40c.; 1852, 85c.; 1853, 85c.; 1854, \$1.10; 1855, \$1.16; 1856, \$1.15; 1857, \$1.25; 1858, \$1.10; 1859, \$1.10; 1860, \$1.10; 1861, 90c.; 1862, \$1.15; 1863, \$1; 1864, \$1; 1865, \$1; 1866, 90c.; 1867, 90c.; 1868, 90c.; 1869, 90c.; 1870, 90c.; 1871, 90c.; 1872, 90c.; 1873, 90c.; 1874, \$1; 1875, \$1.20; 1876, \$1.25; 1877, \$1.20; 1878, \$1.20; 1879, \$1.20; 1880, \$1.20; 1881, \$1.20; 1882, \$1.25; 1883, \$1.20; 1884, \$1.20; 1885, \$1.20; 1886, \$1; 1887, \$1.10; 1888, \$1.20; 1889, \$1.75; 1890, \$1.30; 1891, pt. 1, \$1; 1891, pt. 2, 90c.; 1892, pt. 1, 80c.; 1892, pt. 2, 70c.; 1893, pt. 1, \$1.60; 1893, pt. 2, 80c.; 1894, pt. 1, \$1; 1894, pt. 2, \$1.15; 1895, \$1.60; 1897, \$1.70; 1898, \$1.60; 1899, \$1.60; 1900, \$1.90; 1901, \$1.20; 1902, \$1.10; 1903, \$1.35; 1904, \$1.40; 1905, \$1; 1906, \$1.25; 1907, \$1.75; 1908, \$1; 1909, \$1; 1910, \$1.10; 1911, \$1.35; 1912, 25c.; 1912, maps, 35c.; 1913, 75c.; 1914, 40c.; 1915, 55c.; 1916, \$1; 1917, \$1.

- *Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal.; by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig.^a 10c.
- *Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^a 10c.
- *Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^a 10c.
- *Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.
Primary triangulation between Maryland and Georgia base lines; by C. A. Schott. Report for 1878, app. 8, p. 1-31, 1 text fig.
Description of new meridian instrument; by George Davidson. Report for 1879, app. 7, p. 1-9, 1 pl.
- *Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag. 5c.
Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag. 5c.
- *Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag. 5c.
- *Perfect form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. 5c.
- *Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358. 5c.
- *Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag. 5c.
Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 503-516.
- *Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.
- *Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Eimbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378. 5c.
Field catalogue of time and circumpolar stars for 1885; by George Davidson. Report for 1883, app. 18, p. 1-91.
- *Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880; by Charles S. Peirce. Report for 1883, app. 19, p. 473-487. 10c.
- *Run of micrometer; by George Davidson. Report for 1884, app. 8, p. 377-385. 5c.
Connection at Lake Ontario of primary triangulation of Coast and Geodetic Survey with that of Lake Survey; observations by Charles O. Boutelle; discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map.
- *Results of trigonometrical determination of heights of stations forming Davidson quadrilaterals, Cal.; observations by George Davidson, 1876-1882; discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 fig. 5c.

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* Appendixes 16-19 of Report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Miscellaneous," p. 33.

- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment; by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.
- *Determinations of gravity with Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokyo, Japan; San Francisco, Cal.; and Washington, D. C.; by Edwin Smith. Report for 1884, app. 14, p. 439-473. 10c.
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- *Note on effect of flexure of pendulum upon its period of oscillation; by C. S. Peirce. Report for 1884, app. 16, p. 483-485. 5c.
- Geographical positions of trigonometrical points in Massachusetts and Rhode Island determined by Survey, 1835-1885, and including those determined by Borden survey, 1832-1838; by Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps. 10c.
- *Note on device for abbreviating time reductions; by C. S. Peirce. Report for 1885, app. 15, p. 503-508. 5c.
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- *Effect of unequal temperature upon reversible pendulum; by C. S. Peirce. Report for 1885, app. 17, p. 511-512. 5c.^a
- *Fluctuations in level of Lake Champlain and average height of its surface above sea—Preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. 5c.
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- *Results of spirit leveling of precision about New York Bay and vicinity, 1886 and 1887; observations by John B. Weir and J. E. McGrath; discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map. 5c.
- Bibliography of geodesy; by J. Howard Gore. Report for 1887, app. 16, p. 313-512.
- *Heights from spirit leveling of precision between Mobile, Ala., and Okolona, Miss.; observations by J. B. Weir and J. E. McGrath, 1884, 1886, and 1887; report by Charles A. Schott. Report for 1888, app. 10, p. 409-426. 5c.
- *Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's Landing, Miss., opposite Arkansas City, Ark.; report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453. 5c.
- *Heights from spirit leveling of precision between Arkansas City (on Mississippi River) and Little Rock, Ark.; observations by J. E. McGrath, 1887-88; report by Charles A. Schott. Report for 1888, app. 12, p. 455-464. 5c.
- *Differential method of computing apparent places of stars for determinations of latitude; by E. D. Preston. Report for 1888, app. 13, p. 465-470. 5c.
- Determinations of latitude and gravity for Hawaiian Government; by E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pl., 5 maps, 5 diag. 25c.
- Measurement of Los Angeles base line. Los Angeles and Orange counties, Cal.; by George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag.
- *Results of spirit leveling between tidewater at Annapolis, Md., and Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins; report by C. A. Schott. Report for 1889, app. 15, p. 461-466. 5c.
- *Resulting length and probable uncertainty of five principal base lines, measured with compensation base apparatus, Bache-Würdemann, of Survey, 1847-1855; by Charles A. Schott. Report for 1889, app. 17, p. 479-491. 5c.
- *Report of George Davidson, appointed by President as delegate to 9th conference of International Geodetic Association held at Paris, Oct., 1889. Report for 1889, app. 18, p. 493-503, 1 fig. 5c.
- *Telegraphic determination of longitude of Mount Hamilton, Cal.—Field work by C. H. Sinclair and R. A. Marr; by Charles A. Schott. Bull. 13, p. 147-150. 1889. 5c.

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^a Appendixes 16 and 17 to Report for 1886 are bound together; price, 5 cents.

- Determinations of gravity and magnetic elements in connection with United States scientific expedition to West Coast of Africa, 1889-90; by E. D. Preston. Report for 1890, app. 12, p. 625-684, 10 pl. 16 fig. 1 map. [Includes observations on some islands in the North and South Atlantic Ocean.] 15c.
- International Geodetic Association, 9th conference, Paris, Oct. 3-12, 1889—Address of George Davidson, delegate to association on part of United States. Report for 1890, app. 17, p. 721-733.
- Geographical explorations. Report for 1890, app. 19.
- Report of expedition to Muir Glacier, Alaska, with determinations of latitude and magnetic elements at Camp Muir, Glacier Bay; by Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- Variation of latitude at Rockville, Md., as determined from observations, 1891 and 1892, in cooperation with International Geodetic Association; by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 fig. 2 pl. 2 diag.
- Variation of latitude at Waikiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association; by E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl. 1 fig. 2 maps 9 diag.
- Measure of irregularity in one turn of micrometer screw, and relative value of each turn; by George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag. 5c.
- *Resulting heights from geodetic leveling along transcontinental line of levels between St. Louis and Jefferson City, Mo., 1882 and 1888; by Andrew Braid, Gershom Bradford, and Isaac Winston; discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig. 1 diag. 5c.
- Photography as applied to obtain instantaneous record of lunar distances for determinations of longitude; by C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124. 5c.
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- Proceedings of Geodetic Conference, held at Washington, D. C., Jan. 9-Feb. 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 7 pl. 4 fig. 1 map, 1 diag. 15c.
- Determinations of latitude, gravity, and magnetic elements at stations in Hawaiian Islands, including result for mean density of earth, 1891-92; by E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 8 pl. 12 fig. 2 maps, 6 diag.
- *Results of observations for variations of latitude at Waikiki, Hawaii, in cooperation with work of International Geodetic Association; by E. D. Preston. Bull. 27, p. 6-20, 2 diag. 1893. 5c.
- *Constant of aberration as determined from discussion of results for latitude at Waikiki, Hawaii; by E. D. Preston. Bull. 28, p. 21-34, 1 diag. 1893. 5c.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations; by G. R. Putnam. Also report on geologic examination of some Survey gravity stations; by G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 fig. 1 diag. 15c.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore; by E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig. 10c.
- *Notes on some instruments recently made in instrument division of Survey; by Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pl. 15c.
- Geographic positions of trigonometric points in Massachusetts, determined by Survey, 1843-1894, and including those determined by survey made by Borden, 1832-1838. (2d enl. and rev. ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 3 maps. 35c.
- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1895; by C. A. Schott. Report for 1895, app. 3, p. 333-344.

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- *Graphic method of reducing stars from mean to apparent places; by E. D. Preston. Report for 1895, app. 7, p. 371-380, 3 diag. 10c.
- *Description of leveling rods designed and constructed for use in geodetic leveling operations; by Isaac Winston. Report for 1895, app. 8, p. 381-382, 2 diag. 5c.
- *Tables of azimuth and apparent altitude of Polaris at different hour angles; by G. R. Putnam. Report for 1895, app. 10, p. 393-398. 5c.
- *Constant of aberration as determined from observations of latitude at San Francisco, Cal.; discussion by E. D. Preston; observations by George Davidson. Bull. 32, p. 109-120. 1895. 5c.
- *Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir, Sept.-Nov., 1884, and by I. Winston, Dec., 1891-Feb., 1892; by C. A. Schott. Report for 1896, app. 2, p. 237-246, 1 map. 5c.
- *Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations by J. B. Weir, Sept. and Oct., 1883, and Sept. and Oct., 1884, with releveling by J. B. Weir between Richmond, and Fredericksburg, Va., May and June, 1886, and verification leveling between the two cities by I. Winston, Apr.-June, 1895; by Charles A. Schott. Report for 1896, app. 3, p. 247-260, 1 map. 5c.
- *Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations by J. B. Weir, July-Sept., 1883; report by Charles A. Schott. Report for 1896, app. 4, p. 261-264, 1 map. 5c.
- *Resulting heights from spirit leveling between Jefferson City, Mo., and Holliday, Kans., from observations by I. Winston and F. A. Young, Apr. 21-Oct. 13, 1891; report by Charles A. Schott. Report for 1896, app. 5, p. 265-284, 1 fig. 1 map. 5c.
- Field method of reducing portable transit time observations; by G. R. Putnam. Report for 1896, app. 9, p. 347-352. 5c.
- Determination of constant of aberration from latitude observations with zenith telescope at Honolulu, Hawaii, and San Francisco, Cal.; by E. D. Preston. Report for 1896, app. 10, p. 353-371, 2 diags.
- Telegraphic longitude net of United States and its connection with that of Europe, 1866-1896; by Charles A. Schott. Report for 1897, app. 2, p. 197-261, 1 map. 10c.
- *Resulting longitudes of Kodiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by party under charge of Fremont Morse; by Charles A. Schott. Report for 1897, app. 3, p. 263-268. 5c.
- *Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston, July 11-Oct. 28, 1895; by Charles A. Schott. Report for 1897, app. 4, p. 269-283, 1 fig. 5c.
- Results of pendulum observations, 1895 and 1896; by G. R. Putnam. Report for 1897, app. 6, p. 297-311, 1 pl. 1 map.
- *Measurement of Salt Lake base line in Utah; by William Eimbeck. Report for 1897, app. 12, p. 753-774, 1 fig. 6 pl. 1 map, 2 diag. 15c.
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- *International Geodetic Association for measurement of the earth; by Erasmus D. Preston, delegate on part of United States at 12th general conference. Report for 1899, app. 3, p. 241-269, 1 map. 10c.
- *Determinations of gravity at Polytechnic Institute, Worcester, Mass., and Columbia University, New York City, with pendulum apparatus B; by Edwin Smith. Report for 1899, app. 4, p. 271-282, 2 fig. 5c.
- *Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston, May 12-Oct. 21, 1899; by Isaac Winston. Report for 1899, app. 5, p. 283-298, 1 fig. 5c.

- *Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton, May 8-Oct. 17, 1899; by B. E. Tilton. Report for 1899, app. 6, p. 299-320, 1 fig. 5c.
- *Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson, June 3-Nov. 28, 1899; report by O. W. Ferguson. Report for 1899, app. 7, p. 321-345, 1 fig. 5c.
- Precise leveling in United States; by John F. Hayford. Report for 1899, app. 8, p. 347-886, 8 pl. 3 fig. 2 maps. 40c.
- Oblique boundary line between California and Nevada; by C. H. Sinclair. Report for 1900, app. 3, p. 255-484, 32 pl. 121 fig. 15 maps.
- International latitude service at Gaithersburg, Md., and Ukiah, Cal., under auspices of International Geodetic Association; by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495-520, 2 pl. 1 fig. 2 maps, 2 diag. 10c.
- Transcontinental triangulation and American arc of parallel; by Charles A. Schott. Special publication 4. 871 p. 17 pl. 2 fig. 4 maps, 33 diag. 1900. \$1.60.
- Measurement of nine base lines along 98th meridian; by A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229-302.
- Triangulation northward along 98th meridian in Kansas and Nebraska; by John F. Hayford. Report for 1901, app. 6, p. 357-423.
- Triangulation in Kansas; by J. F. Hayford. Report for 1902, app. 3, p. 211-293, 5 maps. 15c.
- Bibliography of geodesy; by J. H. Gore. 2d ed. Report for 1902, app. 8, p. 427-787. 25c.
- *Eastern oblique arc of United States and osculating spheroid; by Charles A. Schott. Special publication 7. 394 p. 12 pl. 2 maps, 25 diag. 1902. 90c.
- Precise leveling in United States, 1900-1903, with readjustment of level net and resulting elevations; by J. F. Hayford. Report for 1903, app. 3, p. 189-810, 2 views, 14 maps and sketches, 6 diag. 40c.
- Same, reprint with changes of p. 580-809, descriptions of bench marks. 35c.
- Triangulation southward along the 98th meridian in 1902; by J. F. Hayford. Report for 1903, app. 4, p. 811-930, 5 views, 5 maps and sketches, 5 diag.
- Geodetic operations in United States, 1900-1903—Report to the 14th general conference of International Geodetic Association; by O. H. Tittmann. 28 p. 1 illus. 10c.
- Telegraphic longitudes—Pacific arcs from San Francisco to Manila, 1903-4, completing circuit of earth; by Edwin Smith. Report for 1904, app. 4, p. 259-311, 13 illus. 10c.
- *Precise leveling from Red Desert, Wyo., to Owyhee, Idaho, 1903; by J. F. Hayford. Report for 1904, app. 6, p. 403-430. 10c.
- *Precise leveling from Holland to New Braunfels, Tex., 1903; by J. F. Hayford. Report for 1904, app. 7, p. 433-450. 5c.
- Test of transit micrometer; by John F. Hayford. Report for 1904, app. 8, p. 453-487, 2 illus. 15c.
- Triangulation in California: pt. 1; by A. L. Baldwin. Report for 1904, app. 9, p. 491-764, 21 illus.
- *Precise leveling from Red Desert, Wyo., to Seattle, Wash., 1903-4; by J. F. Hayford. Report for 1905, app. 4, p. 193-241. 10c.
- Triangulation along 98th meridian, Lampasas to Seguin, Tex.; by J. F. Hayford. Report for 1905, app. 5, p. 243-282, 2 diag. 15c.
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- Figure of earth and isostasy from measurements in United States; by J. F. Hayford. 178 p. 6 maps, 11 diag. 1909. \$1.35.
- Supplementary investigation of figure of earth and isostasy, 1909; by J. F. Hayford. 80 p. 5 maps, 1 diag. 85c.
- *Geodetic operations in United States, 1906-1909—Report of 16th general conference of International Geodetic Association; by O. H. Tittmann and J. F. Hayford. 11 p. 5c.

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- Primary base lines at Stanton, Tex., and Deming, N. Mex.; by William Bowie. Report for 1910, app. 4, p. 143-171, 5 text fig.
- Triangulation in California: pt. 2; by C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diag.
- Measurement of flexure of pendulum supports with interferometer; by W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text fig. 5c.
- Formulae and tables for computation of geodetic positions. 5th ed., with preface by C. R. Duvall. Special publication 8. 91 p. 1911. 15c.
- Effect of topography and isostatic compensation upon intensity of gravity; by John F. Hayford and William Bowie. Special publication 10. 132 p. 11 text fig. 9 charts. 1912. 35c.
- *Same, second paper; by William Bowie. Special publication 12. 28 p. 5 charts. 1912. 40c.
- Triangulation along 98th meridian, Nebraska to Canada, and connection with Great Lakes; by William Bowie. Report for 1911, app. 4, p. 159-342, 2 pl. 10 p. of pl.
- Triangulation along 98th meridian, Seguin to Point Isabel, Tex.; by A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text fig. 20c.
- Triangulation along east coast of Florida and on Florida keys; by Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text fig. 20c.
- *Texas-California arc of primary triangulation; by William Bowie. Special publication 11. 141 p. 8 pl. 10 fig. 1912. 20c.
- Geodetic operations in United States, 1909-1912—Report to 17th general conference of International Geodetic Association; by O. H. Tittmann. 18 p. 3 pl.
- The California-Washington arc of primary triangulation; by A. L. Baldwin. Special publication 13. 78 p. 7 maps. 1913. 15c.
- Determination of time, longitude, latitude, and azimuth; by William Bowie. Special publication 14. 177 p. 26 pl. 1 fig. 1913. 35c.
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- Latitude observations with photographic zenith tube at Gaithersburg, Md.; by Frank E. Ross, Ph. D. Special publication 27; serial 7. 127 p. 17 pl. 1 text fig. 1915. 25c.
- Application of theory of least squares to adjustment of triangulation; by Oscar S. Adams. Special publication 28; serial 9. 220 p. 9 text fig. 1915. 25c.
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- Determination of difference in longitude between each two of the stations Washington, Cambridge, and Far Rockaway; by Fremont Morse and O. B. French. Special publication 35; serial 29. 40 p. 3 pl. 5 text fig. 1916. 10c.
- Precise leveling from Reno to Las Vegas, Nev., and from Tonopah Junction, Nev., to Laws, Cal.; by H. G. Avers and G. D. Cowie. Special publication 39; serial 49. 49 p. 5 text fig. 1916. 10c.

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Description of triangulation stations in Georgia; by Clarence H. Swick. Special publication 45; serial 73. 43 p. 1 pl. 10c.

Triangulation in Maine; by Walter F. Reynolds. Special publication 46; serial 74. 98 p. 1 pl. 21 diag. In press.

HYDROGRAPHY.

*Abstract of paper read before National Academy of Sciences, Apr. 16, 1869, on earthquake wave of Aug. 14, 1868; by J. E. Hilgard. Report for 1869, app. 13, p. 233-234. 5c.

*Description of optical densimeter for ocean water; by J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig. 5c.

*Physical hydrography of Gulf of Maine; by Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig. 2 diag. 5c.

*Deep-sea sounding and dredging; by Charles D. Sigsbee. 221 p. 35 pl. 16 diag. 8 fig. 1880. Cloth, \$1.

*Comparison of surveys of Delaware River in front of Philadelphia, 1843 and 1878; by H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diag. 5c.

*Comparison of surveys of Mississippi River in vicinity of Cubitts Gap; by H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag. 5c.

*Comparison of survey of Delaware River of 1819, between Pettys and Tinicum Islands, with more recent surveys; by Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diag. 5c.

*Discussion of tides of Pacific coast of United States; by William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diag. 5c.

Report on Siemens electrical deep-sea thermometer; by J. R. Bartlett. (Accompanied by description of apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 fig. 2 diag.

*Estuary of Delaware River; by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig. 1 diag. [See also Report for 1887, app. 13.] 5c.

*Physical hydrography of Delaware River and Bay—Comparison of recent with former surveys; by H. L. Marindin. Report for 1884, app. 12, p. 431-434, 2 diag. 5c.

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*Delta of Delaware River; by Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. 5c.

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- *Same, abstract. Bull. 3, p. 7-12, 2 maps. 1888. 15c.
- *Encroachment of the sea upon coast of Cape Cod, Mass., as shown by comparative surveys; by Henry L. Marindin. Report for 1889, app. 12, p. 403-407, 1 map. 5c.
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- *Currents of New York Bay and Harbor; compiled by B. A. Colonna from notes of physical survey by H. L. Marindin. 2d ed. Bull. 8, p. 41-43. 1889. 5c.
- *Sounds and estuaries of North Carolina with reference to oyster culture; by Francis Winslow. Bull. 10, p. 51-136, 2 maps, 1 diag. 1889. 20c.
- *Syphon tide-gauge for open seacoast; by Henry L. Marindin. Bull. 12, p. 143-146, 1 diag. 1889. 10c.
- *Use of observations of currents for prediction purposes; by John F. Hayford. Report for 1890, app. 14, p. 691-703. 5c.
- *Comparison of predicted with observed tides and heights of high and low water at Sandy Hook, N. J., 1889; by Alex. S. Christie and John F. Hayford. Report for 1890, app. 15, p. 705-714, 2 diag. 10c.
- *Reduction of hydrometer observations of salt-water densities. Submitted for publication, Feb. 18, 1890, by O. H. Tittmann; revised for republication, Feb. 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277. 5c.
- *Changes in shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by comparison of surveys made between 1835, 1867, and 1890; by Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps. 5c.
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- *Observations of currents with direction-current meter in Straits of Florida and in Gulf of Mexico, 1891; by E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl. 1 map, 7 diag. 10c.
- *Sounds and estuaries of Georgia with reference to oyster culture; by J. C. Drake. Bull. 19, p. 179-209, 7 maps. 1891. 30c.
- *Tides and currents in harbor of Edgartown and in Katama Bay, Marthas Vineyard; by Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diag. 5c.
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- Manual of tides: pt. 5, Currents, shallow-water tides, meteorological tides, and miscellaneous matters; by R. A. Harris. Report for 1907, app. 6, p. 231-546, 22 diag. 7 charts. 60c.
- *Long-wire drag; by N. H. Heck. Rev. ed. Special publication 21. 31 p. 7 pl. 12 text fig. 1914. 20c.
- Survey of oyster bars, Anne Arundel County, Md.—Description of boundaries and landmarks, and report of work of Survey in cooperation with Maryland Shell Fish Commission; by C. C. Yates. 106 p. 1 map. 1907. 25c.

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Summary of survey of oyster bars of Maryland, 1906-1912; by C.-C. Yates. 81 p. 2 maps. 1913. 25c.

*Table of depths for channels and harbors, coasts of United States, Porto Rico, Hawaiian Islands, and Philippine Islands. 175 p. 1913. 20c.

Arctic tides; by R. A. Harris. 103 p. 3 charts. 1911. 20c.

Wire-drag work on Atlantic coast; by N. H. Heck and J. H. Hawley. Special publication 29; serial 13. 24 p. 4 pl. 4 text fig. 1915. 10c.

Wire-drag work in Alaska; by L. O. Colbert and John A. Daniels. Special publication 34; serial 24. 31 p. 1 chart, 7 pl. 6 text fig. 1916. 15c.

Coast pilots.

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Same, sec. C, Sandy Hook to Cape Henry, including Delaware and Chesapeake Bays. [Formerly issued as pts. 5-6.] 1916. Serial 32. 284 p. 1 chart. 50c.^a

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 Atlantic coast tide tables, for eastern North America, 1918. Serial 63. (Reprinted from General tide tables.) 190 p. 1 text fig. 6 pasters. 10c.^a
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 Same, supplement. Feb. 14, 1918. Serial 85. 4 p.
 Catalogue of charts, sailing directions, and tide tables of Philippine Islands, 1918. In press.

Sailing directions for the Philippine Islands.

- Philippine Islands—Sailing directions: sec. 1, North and west coasts of Luzon and adjacent islands. 4th ed. 1912. 132 p.
 Same, sec. 2, Southwest and south coasts of Luzon and adjacent islands. 4th ed. 1910. 102 p.
 Same, sec. 3, Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.
 Philippine Islands—Sailing directions: Sec. 4, Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 p.
 Same, sec. 5, Coasts of Mindanao and adjacent islands. 4th ed. 1913. 201 p.
 Same, sec. 6 and 7, Mindoro Strait, Palawan Island, and Sulu Sea and Archipelago. 3d ed. 1911. 251 p.

Notice to mariners.

- Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

- *Proceedings of Topographical Conference, Washington, D. C., Jan. 18–Mar. 7, 1892. Report for 1891, pt. 2, app. 16, p. 565–746, 2 pl. 25 fig. 1 map, 5 diag. 25c.
 *Subdivision 1. List of original topographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834–Dec. 31, 1895; nos. 1–2209. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834–Dec. 31, 1895; nos. 1–2222. Report for 1895, app. 11, p. 399–516. 40c.
 Plane table manual; by D. B. Wainwright. Report for 1905, app. 7 (reprint with corrections, 1916), p. 239–342, 7 litho. 9 pl. 20 p. of pl. 1 text fig. 50c.

TERRESTRIAL MAGNETISM.

- On chart of magnetic declination in United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400–401, 1 map.
 Collection of results for declination, dip, and intensity, from observations made by Survey, 1833–1882, July; by Charles A. Schott. Report for 1881, app. 9, p. 159–224.
 *Account and results of magnetic observations made under direction of Survey in cooperation with United States Signal Office at United States polar station, Ooglaamie, Point Barrow, Alaska; P. Henry Ray, commanding post. Reduction and discussion by Charles A. Schott. Report for 1883, app. 13, p. 323–365, 10 fig. 1 map. 10c.
 Geographical distribution and secular variation of magnetic dip and intensity in United States; by Charles A. Schott. Report for 1885, app. 6, p. 129–274, 3 maps, 3 diag.

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 * Available only from Coast and Geodetic Survey or its agencies and at price stated.

- *Secular variation in position of agonic line of North Atlantic and of America, between epochs 1500 and 1900 A. D.; by Charles A. Schott. Bull. 6, p. 29-43, 3 maps. 1888. 25c.
- *Historical review of work of Survey in connection with terrestrial magnetism; by Charles A. Schott. Bull. 7, p. 35-40, 4 maps. 1888. 30c.
- Secular variation of magnetic declination in United States and at some foreign stations; by Charles A. Schott. Report for 1888, app. 7, p. 177-312.
- Distribution of magnetic declination in United States for epoch 1890; by Charles A. Schott. 2d ed. Report for 1889, app. 11, p. 233-402, 3 maps, 1 diag.
- *Magnetic observations made on Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730. Bull. 20, p. 211-214. 1891. 5c.
- Results of observations made at Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, 1882-1889: pt. 1, Results of absolute measures of direction and intensity of earth's magnetic force; discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199-241. 10c.
- Same, pt. 2, Results of differential measures of magnetic declination; discussion and report by Charles A. Schott. Report for 1890, app. 9, p. 243-457, 9 diag. 20c.
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- Secular variation and annual change of magnetic force at stations occupied by E. D. Preston, in connection with United States eclipse expedition to West Coast of Africa, 1889-90, in charge of D. P. Todd; discussion and report by C. A. Schott. Submitted for publication Mar. 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-39. 5c.
- Magnetic observations made during Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730; discussion by C. A. Schott. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report for 1891, pt. 2, app. 5, p. 269-273.
- Results of magnetic observations at stations in Alaska and in northwest territory of Dominion of Canada; observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, 1889, 1890, and 1891; discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.
- Distribution of magnetic declination in Alaska and adjacent waters for 1895, and construction of isogonic chart for same epoch; by C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.
- Secular variation in direction and intensity of earth's magnetic force in United States and in some adjacent foreign countries; by Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag.
- Distribution of magnetic declination in United States for epoch Jan. 1, 1900; by Charles A. Schott. 3d ed. Report for 1896, app. 1, p. 147-235, 3 illus.
- Distribution of magnetic dip and magnetic intensity in United States for epoch Jan. 1, 1900; by Charles A. Schott. 2d ed. Report for 1897, app. 1, p. 159-196, 3 maps.
- Results of magnetic observations made in connection with Greenland expedition of 1896, under charge of A. E. Burton; by G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag. 5c.
- General report upon magnetic survey of North Carolina, with a brief historical sketch of fundamental phenomena of earth's magnetism; by James B. Baylor and Daniel L. Hazard, under direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pl. 2 maps. 15c.
- Magnetic work of Survey; by L. A. Bauer. Report for 1899, app. 10, p. 939-952. 5c.
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Results of magnetic observations made by Survey; by L. A. Bauer:

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Distribution of magnetic declination in United States for Jan. 1, 1905; by L. A. Bauer. Report for 1906, app. 4, p. 211-226, 1 map. 10c.

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Principal facts of earth's magnetism, and methods of determining true meridian and magnetic declination. (Reprinted from United States magnetic declination tables and isogonic charts for 1902.) 99 p. 1 map, 9 illus. 18 fig. 1913.

*Directions for magnetic measurements; by D. L. Hazard. 131 p. 10 fig. 1911. 15c.
United States magnetic tables and magnetic charts for 1915; by Daniel L. Hazard. Special publication 44; serial 67. 256 p. 5 charts in pocket. 1918. 75c.

CARTOGRAPHY.

*Quincuncial projection of sphere; by C. S. Peirce. Report for 1877, app. 15, p. 191-192, 1 map. 5c.

Tables for polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 4th ed. Special publication 5 (revised). 189 p. 1 text fig. 1917. [Replaces app. 6, Report for 1884.] 25c.

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Lambert conformal conic projection with two standard parallels, including comparison of Lambert projection with Bonne and polyconic projections; by Charles H. Deetz. Special publication 47; serial 77. 61 p. 7 litho. 14 text fig. 1918. 75c.

Lambert projection tables, with conversion tables. [Supplement to Lambert conformal conic projection with two standard parallels.] Special publication 49; serial 82. 84 p. 2 text fig. 1918. 15c.

Lambert projection tables for the United States; by Oscar S. Adams. Special publication 52; serial 89. 243 p. 11 text fig. 1918. In press.

MISCELLANEOUS.

Nicaragua route for interoceanic ship canal, with review of other proposed routes; by Maximilian von Sonnenstern to minister of public works of Nicaragua. Translated for Survey. 22 p., 1 map. 1874.

*Hypsometric formula based upon thermodynamic principles; by Chas. A. Schott. Report for 1876, app. 19, p. 388-390. 10c.^a

*Relation of lawful standards of measure of United States to those of Great Britain and France; by J. E. Hilgard. Report for 1876, app. 22, p. 402-406. 5c.

Blue clay of Mississippi River; by George Little. Report for 1880, app. 12, p. 145-171, 1 sketch. 10c.

*Length of nautical mile; by J. E. Hilgard. Report for 1881, app. 12, p. 354-356. 5c.

*Atlas de Filipinas. Special publication 3. 1899. Cloth, \$3.15; paper, \$2.65.

*Plea for light on St. Georges bank; by Henry Mitchell. Report for 1885, app. 11, p. 483-485. 5c.

Examination of some early voyages of discovery and exploration on northwest coast of America, 1539-1603; by George Davidson. Report for 1886, app. 7, p. 155-253, 1 map.

*Relation between metric standards of length of Coast and Geodetic Survey and Lake Survey; by C. A. Schott and O. H. Tittmann. Bull. 17, p. 165-173. 1889. 5c.

*Report in relation to portion of boundary line in dispute between the States of Maryland and Virginia; by Henry L. Whiting. Report for 1890, app. 11, p. 621-623. 5c.

*Least square adjustment of weighings—Report prepared by direction of O. H. Tittmann, assistant, in charge of Office of Standard Weights and Measures; by John F. Hayford. Report for 1892, app. 10, p. 515-527. 5c.

^aAvailable only from Superintendent of Documents and at price stated. See note on p. 2.

^aAppendixes 16-19 of Report for 1876 are bound under one cover. Appendixes 16-18 are listed under the heading "Geodesy," p. 21.

- State laws authorizing officers of Survey to enter upon lands within State limits for purposes of the Survey. Report for 1893, app. 1, p. 1-18.
- *Boundary line between Pennsylvania and Delaware: pt. 1, Historical account of boundary line; pt. 2, Detailed account of work on boundary. By W. C. Hodgkins. Report for 1893, app. 8, p. 177-222, 1 fig. 3 maps, 2 facsim. 10c.
- *Legal units of electrical measure in United States. Approved Aug. 12, 1894. Bull. 31, p. 105-108. 5c.
- *General statement of administration and work of Survey, with historical sketch, 1807-1898; by H. S. Pritchett. Extract from report of Superintendent for 1897-98, p. 21-28, 1 sketch. 5c.
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- *791. Limnological study of Finger Lakes of New York; by Edward A. Birge and Chancey Juday. Bull., vol. 32, 1912, p. 525-610, 6 pl. (maps), 23 text fig. 25c.
- *792. Experimental study of growth and migration of fresh-water mussels; by Frederick B. Isely. Appendix 3 to Report for 1913, 24 p. 3 pl. 10c.
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- *804. Mussel resources of Illinois River; by Ernest Danglade. Appendix 6 to Report for 1913, 48 p. 1 chart, 5 pl. 2 text fig. The mussel fishery of Fox River; by John A. Eldridge. Appendix 7 to Report for 1913, 8 p. 15c.
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- 811. Menhaden industry of Atlantic coast; by Rob Leon Greer. [Reprint with additions, Oct. 8, 1917.] Appendix 3 to Report of Commissioner for 1914, 30 p. 1 pl. 6 p. of pl. 10c.
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- *823. Structure and growth of scales of squeteague and pigfish as indicative of life history; by Harden F. Taylor. Bull., vol. 34, 1914, p. 285-330, 10 pl. 8 text fig. 20c.
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858. Fishes of Kentucky and Tennessee: Distributional catalogue of known species; by Barton Warren Evermann. Bull. vol. 35, 1915-16, p. 293-368. 15c.
859. Decapod crustaceans of Beaufort, N. C., and surrounding region; by W. P. Hay and C. A. Shore. Bull. vol. 35, 1915-16, p. 369-475, 15 pl. 20 text fig. 25c.
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861. The Rangeley Lakes, Me.: with special reference to habits of fishes, fish culture, and angling; by William Converse Kendall. Bull. vol. 35, 1915-16, p. 485-594, 4 pl. 23 text fig. In press.

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- *3. Mussels of central and northern Minnesota. Oct. 26, 1912. 6 p. 5c.
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Statistical bulletins of the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., and Seattle, Wash., by American fishing vessels, are issued monthly and annually. The monthly issues are not carried in this list, but can be obtained upon application.

383. Shrimp industry of South Atlantic and Gulf States, 1916.
386. Fisheries of Pacific Coast States, 1915.
391. Summary, by species, of distribution of fish and fish eggs by United States
Bureau of Fisheries during fiscal year 1917 and comparative statement of out-
put of fish and fish eggs for a series of years.

*Available only from Superintendent of Documents at prices stated. See note on p. 2.

402. Quantities and values of certain fishery products landed at Seattle, Wash., by American fishing vessels, calendar year 1917, by fishing grounds, and by months, and fishery products taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, calendar year 1917, by months.
403. Quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels, calendar year 1917, by months.
404. Same, calendar year 1917, by fishing grounds.

MISCELLANEOUS.

- *Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 1, Physical and zoological; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 2, Botanical; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 1, 544 p. 1 chart, 3 maps, 270 text fig. 90c.
- *Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 3, Catalogue of marine fauna; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 4, Catalogue of the marine flora; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 2, 318 p. 65c.
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Pacific Coast.

Great Lakes.

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- Regulations for lighting bridges, 1915. 10 p. 5 pl.
- Whitewash and cement-wash formulas. 1 p.
- Whitewash formulas. 1 p.
- Lighthouse Service. [Brief sketch of Lighthouse Service.] 4 p.
- Prevention of disease and care of sick and injured: Medical handbook for use of lighthouse vessels and stations; revised by W. G. Stimpson, M. D., Assistant Surgeon General, U. S. Public Health Service, with supplement on First aid to injured, by R. M. Woodward, M. D., surgeon, U. S. Public Health Service. June 11, 1915. 116 p. 61 text fig. 50c.^a
- United States Lighthouse Service, 1915; compiled by John S. Conway, Deputy Commissioner of Lighthouses. 94 p. 42 text fig.
- Useful information concerning aids to navigation. 1 p. 1 pl. 1916.
- Two-hundredth anniversary of Boston Light. Sept. 25, 1916. 13 p. 2 p. of pl.

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- Annual report of Commissioner, 1917. 126 p.
- Merchant vessels of the United States, with official numbers and signal letters, and lists of vessels belonging to United States Government, with distinguishing signals, year ended June 30, 1917.^b
- Seagoing vessels of United States, with official numbers and signal letters. Part 6 of 48th annual list of merchant vessels of United States, year ended June 30, 1917. (Printed exclusively for instruction of captains of seagoing vessels of United States.)^b
- Navigation laws of United States. May 18, 1915. 585 p. \$1.
- Same, 1st supplement. Sept. 23, 1916. 18 p. 5c.
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- Rules for the St. Marys River. Apr. 15, 1911. 14 p.
- Radio communication laws and regulations of United States. July 27, 1914, with addenda giving amendments to Jan. 1, 1917. 104 p. 15c.
- Radio stations of United States. July 1, 1917.^b

^a Free distribution confined to Lighthouse Service. Copies bound in full Irish linen may be obtained from Superintendent of Documents, Government Printing Office, for 50 cents each.

^b Held confidential during the period of the war and distribution restricted accordingly.

Radio Service bulletin. Nos. 19-27, July, 1916, to Mar., 1917. Various paging. 5c. each; 25c. per annum.^a [The publication of this pamphlet has been temporarily discontinued.]

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With the exception of a few miscellaneous reports, publications of the Bureau for limited free distribution are issued in three series, designated "Scientific Papers," "Technologic Papers," and "Circulars." The Scientific Papers are also collated and bound from time to time in the form of a Bulletin, which is sent upon request to public libraries, educational institutions, scientific societies, and other institutions where a complete file is essential. To others the Bulletin is sold by the Superintendent of Documents at 25 cents per copy, or \$1 per annum. Four numbers are issued each year, and the four numbers constitute one volume. To date 13 volumes and 1 number of volume 14 have been issued, and 2 numbers of volume 14 are in press. The complete set of 13 volumes and 3 numbers, containing 317 Scientific Papers, is sold by the Superintendent of Documents at \$13.75; 13 volumes, bound in cloth, \$19.50.

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^b*Issued monthly, and supersedes quarterly supplements to list of Radio Stations of United States. Contains amendments to or changes in Radio Laws and Regulations, items of general interest concerning enforcement of radio laws, and latest information concerning Government, commercial, and special radio stations. Information regarding amateur stations will appear only in annual edition of list of Radio Stations.

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73. Copper. In press.
74. Radio instruments and measurements. Mar. 23, 1918. 330 p. 1 pl. 12 p. of pl. 199 text fig. 60c.
75. Safety for the household. Jan. 10, 1918. 127 p. 16 pl. 7 text fig. 15c.

MISCELLANEOUS SERIES.

1. Manual of inspection and information for weights and measures officials. In press.

MISCELLANEOUS PUBLICATIONS.

Annual report of Director, 1917. 158 p. 1 paster. [There are also available copies of annual reports for 1903, 1904, 1906, 1907, 1908, 1912, 1913, 1914, 1915, and 1916.]^a
International metric system. (Chart.)

International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.

First conference on weights and measures of United States. Jan. 16, 17, 1905. 46 p. 10c.

Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.

Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.

Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.

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Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.

Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.

Ninth annual conference on weights and measures of United States. May 26-29, 1914. 176 p. 1 pl. 8 text fig. 20c.

Tenth annual conference on weights and measures of United States. May 25-28, 1915. 254 p. 1 paster, 18 text fig. 50c.

Eleventh annual conference on weights and measures of United States. May 23-26, 1916. 194+44+27 p. 7 pl. 8 p. of pl. 21 text fig. 35c.

National Bureau of Standards—Description of work of Bureau. 24 p.

Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan. 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]

Tolerances and specifications for weights and measures and weighing and measuring devices. 29 p. 2 text fig.

Some technical methods of testing miscellaneous supplies; by Percy H. Walker. Nov. 15, 1916. 68 p. 3 text fig. 15c.

^a Copies of the annual reports of the Director may be obtained from the Superintendent of Documents as follows: 1905, 5c.; 1906, 10c.; 1915, 15c.; 1917, 15c.

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The Report of the Supervising Inspector General is the only regular publication issued by the Steamboat-Inspection Service.

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors, heretofore published in one volume, are now published as four separate pamphlets, according to the kinds of waters covered by the rules, as follows: (1) Ocean and coastwise; (2) Great Lakes; (3) Lakes other than the Great Lakes, bays, and sounds; and (4) Rivers.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest available editions of the publications are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General, 1917. 42 p.

Laws governing Steamboat-Inspection Service. Ed. July 14, 1917. 87 p.

General rules and regulations prescribed by Board of Supervising Inspectors, as amended Jan., 1916. Ed. Nov. 21, 1916.^a

Ocean and coastwise. 192 p. 8 text fig.

Great Lakes. 154 p. 6 text fig.

Lakes other than Great Lakes, bays, and sounds. 150 p. 6 text fig.

Rivers. 144 p. 6 text fig.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. Aug. 14, 1917. 32 p. 5 text fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.

^a A new edition, as of Apr. 8, 1918, of each of the four books of rules and regulations is in preparation and will be issued in the order shown as promptly as possible. The revised ocean and coastwise rules will probably be available the latter part of May.



DEPARTMENT OF COMMERCE
DIVISION OF PUBLICATIONS

LIST OF PUBLICATIONS
OF THE
DEPARTMENT OF COMMERCE
AVAILABLE FOR DISTRIBUTION



17th EDITION
MAY 1, 1919

The use of an asterisk (*) in this pamphlet indicates that the publication is available only from the Superintendent of Documents and at the price stated



WASHINGTON
GOVERNMENT PRINTING OFFICE
1919



Received through the
Bureau for Municipal Research

NOTE.

In its efforts to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States, the Department of Commerce issues many regular and special publications.

This pamphlet, which contains a complete list of the publications of the Department available either for free distribution by the Department or by purchase from the Superintendent of Documents, revised and corrected to date of issue, is published once each year. There is also published each month a list of the publications issued by the Department during that month. Persons desiring to have their names placed on the mailing list to receive copies of either the complete list or the monthly list should address the "Chief, Division of Publications, Department of Commerce, Washington, D. C."

The free distribution of many of the publications of the Department is confined to libraries, educational institutions, the press, and commercial organizations. Others may procure them, at prices stated herein, from the "Superintendent of Documents, Government Printing Office, Washington, D. C.," to whom remittances should be sent direct, as his office is not a part of the Department of Commerce. For the convenience of the general public, coupons that are good until used in exchange for Government publications sold by the Superintendent of Documents may be purchased from his office in sets of 20 for \$1. Remittances should be made by coupons, postal money order, express order, or New York draft. Currency may be sent at sender's risk. Postage stamps, defaced or smooth coins, or foreign money positively will not be accepted. The use of an asterisk (*) in this pamphlet indicates that the Department's supply of the publication is entirely exhausted and that copies are available only from the Superintendent of Documents and at the price stated.

As the demand on the part of the public for the reports of the Department is beyond its ability to supply, persons to whom they are sent having no further use for them are requested to notify the Department of their willingness to dispense with them, upon receipt of which notice franked mailing slips will be forwarded for their return to the Department.

Requests for copies of publications issued by the Office of the Secretary should be addressed to the "Chief, Division of Publications, Department of Commerce, Washington, D. C." Requests for free copies of other publications given in this list should be addressed to the bureaus in which the publications originate. Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Coast and Geodetic Survey. In all cases persons receiving publications regularly should give notice promptly of any changes of address, giving the exact form of the old as well as the new address and stating specifically the publication or publications received by them. The Department should also be notified promptly when publications are no longer desired.

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EDITION MAY 1, 1919.

OFFICE OF THE SECRETARY.

In addition to the following, the Department issues in leaflet form, from time to time, circulars and decisions. The circulars are principally directions to officers and employees of the Department and its various bureaus and services, defining their duties and responsibilities, while the decisions are largely interpretations of laws relating to the bureaus and services of the Department.

Annual report of Secretary, 1918. 157 p. [There is also on hand a limited supply of Secretary's report for each of years 1903 to 1917, inclusive.]

Reports of Department [report of Secretary and reports of bureaus consolidated]. 1918. 886 p. 80c.^a [There is also on hand a limited supply of consolidated reports of Department for each of years 1904, 1905, 1909, and 1911 to 1917, inclusive.]

Annual report of Chief of Appointment Division, 1918. 14 p. [There are also available copies of each annual report from 1910 to 1917, inclusive.]

Annual report of Chief of Division of Publications, 1918. 31 p. [There are also available copies of each annual report from 1907 to 1917, inclusive.]

Department of Commerce: Origin and organization, 1915. 71 p.

Condensed history, duties, and practical operation of Department and its several bureaus and offices, together with laws relating specifically thereto. July 1, 1913. 211 p.

Circulars of Department in effect July 1, 1917. 184 p.

List of publications of Department available for distribution. 17th ed. May 1, 1919. 78 p.

List of publications issued by Department. 4 p. [Issued monthly. Contains list of publications issued by Department during month for which pamphlet is issued.]

Standardization in construction of freight ships; by E. Platt Stratton. May, 1916. 16 p. 2 text fig. 5c.

Advisory conference on subject of making passenger vessels more secure from destruction by fire. May 3, 1916. 63 p.

Proceedings of conference on automatic sprinklers on vessels. May 22, 1916. 34 p. 2 text fig.

Establishment of load-line regulations. Proceedings of conference held at office of Secretary of Commerce, Sept. 27, 1916. 54 p.

Inland water transportation. 11 p. [Report of Walter Parker, Assistant to the Secretary of Commerce for Inland Water Transportation, for the six months ended Dec. 31, 1917.]

Inland waterway terminal development. Apr. 10, 1918. 10 p. [Report of Walter Parker, Assistant to the Secretary of Commerce for Inland Water Transportation.]

Atlantic intracoastal canals: Commercial, military, and other advantages of deep sea-level canals connecting north Atlantic coastal waterways; by Grosvenor M. Jones and Oliver C. Moles. [With bibliography.] Sept. 17, 1918. 139 p. 3 pl. 1 map, 5 text fig. 15c.

Waste reclamation: Organization, functions, and objects of national and local service, 1919. 19 p.

^aCopies of reports for earlier years also are available from the Superintendent of Documents. Prices will be furnished upon application to his office.

BUREAU OF THE CENSUS.

The Bureau of the Census compiles and publishes, in accordance with the requirement of the Constitution for the enumeration of the inhabitants of the United States, decennial reports relating to population. Under the provisions of the act of March 6, 1902, establishing the Permanent Census Bureau, it publishes decennial reports on mines and quarries; wealth, debt, and taxation; religious bodies; transportation by water; fisheries; benevolent institutions; insane and feeble-minded in hospitals and institutions; prisoners and juvenile delinquents; and paupers in almshouses. It also publishes quinquennial reports on manufactures and electrical industries; a biennial edition of the Official Register of the United States; annual reports on vital statistics and statistics of cities; semiannual reports on stocks of leaf tobacco held by manufacturers and dealers; and, at frequent intervals during the cotton season, statistics of cotton production, consumption, and distribution, and cottonseed production. The population, agriculture, and manufactures publications include numerous bulletins.

Limited numbers of the reports and bulletins issued by the Bureau of the Census are supplied to applicants without expense so long as the editions allowed for free distribution will permit, and can also be purchased at prices stated in this list from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular containing a complete list of the Bureau's publications will be mailed upon request.

TENTH CENSUS (1880) REPORTS.

- *Agriculture (including cereal production; flour-milling processes; tobacco; meat production). 1,149 p. \$1.50.
- *Compendium of Tenth Census of United States, 1880. 1,845 p. \$1.10.
- *—— revised edition, pt. 1, 1885. 1,040 p. 65c.
- *—— revised edition, pt. 2, 1888. 858 p. 55c.
- *Cotton production: pt. 1, Mississippi Valley and Southwestern States. 924 p. \$1.80.
- *—— pt. 2, eastern Gulf, Atlantic, and Pacific States. 848 p. \$1.30.
- Defective, dependent, and delinquent classes of population (deaf and dumb, idiots, insane, paupers, prisoners and inmates of reformatories, and homeless children). 638 p. 75c.
- *Forests of North America, 1884. 622 p. \$1.25.
- *History and present condition of fishery industries. 25c.
- *Manufactures (including power used; factory system; interchangeable mechanism; hardware, cutlery, and edge tools; iron and steel; silk; cotton; wool; chemical products and salt; glass). 1,248 p. \$1.50.
- *Mining industries (exclusive of precious metals). 1,064 p. \$2.
- *Mining laws and regulations: United States, State, Territorial, and local. 716 p. \$1.10.
- *Mortality and vital statistics: pt. 1, General death rate; sex in relation to deaths; relation of age to deaths; relations of color and race to deaths; relation of month or season to deaths. 832 p. \$1.20.^a
- pt. 2, Locality in relation to deaths; causes of death; morbidity or sick rates; births, birth rates, and life tables; ages of living population. 962 p. \$1.60.^a
- *Plates and diagrams accompanying part 2 of report on mortality and vital statistics, 1886. 65c.
- *Newspaper and periodical press; Alaska; seal islands; shipbuilding. 1,122 p. \$1.60.
- *Petroleum, coke, and building stones. 872 p. \$1.75.
- *Population: By States, counties, and minor civil divisions, with distinction of race, sex, age, nativity, and occupations, together with summary tables relating to newspapers and periodicals; public schools; illiteracy; the dependent, defective, and delinquent classes. 1,054 p. \$1.50.

^a Available only from Superintendent of Documents and at price stated. See note on page 2.

^a The Superintendent of Documents can supply copies of pts. 1 and 2 in sets at \$2.25 per set.

Power and machinery employed in manufactures, and ice industry of United States. 666 p. 85c.

*Precious metals, statistics and technology of. 558 p. \$1.

*Social statistics of cities: pt. 1, New England and Middle States. (Includes streets, street railways, public buildings and works, sanitation, government schools, and commerce and industry.) 924 p. \$1.50.

*—— pt. 2, Southern and Western States, 1880. 850 p. \$1.35.

*Transportation agencies in United States. 870 p. \$1.25.

*Valuation, taxation, and public indebtedness. 920 p. \$1.35.

*Wages in manufacturing industries; average retail prices of necessities of life; trades societies; strikes and lockouts. 792 p. \$1.10.

*Water power of United States, 1885: pt. 1. 874 p. \$1.25.

*—— 1887: pt. 2. 788 p. \$1.

ELEVENTH CENSUS (1890) REPORTS.

*Abstract. 312 p. 25c.

*Agriculture, irrigation, and fisheries. 946 p. \$1.50.

*Agriculture by irrigation. 336 p. 80c.

*Alaska, population and resources of. 294 p. \$1.15.

*Annual report of Superintendent of the Census, 1889, 5c.; 1890, 5c.; 1895, 5c.; 1896, 5c.; 1897, 5c.

*Churches. 840 p. \$1.10.

*Compendium: pt. 1, Population; dwellings and families; Alaska. 1,098 p. \$1.15.

*—— pt. 2, Vital and social statistics; educational and church statistics; wealth, debt, and taxation; mineral industries; insurance; foreign-born population; manufactures. 1,070 p. \$1.10.

*—— pt. 3, Population; agriculture; manufactures; fisheries; transportation; wealth, debt, and taxation; real estate mortgages; farms and homes; proprietorship and indebtedness; Indians taxed and not taxed. 1,158 p. \$1.05.

*Crime, pauperism, and benevolence in United States: pt. 1, Analysis. 420 p. 70c.

*—— pt. 2, General tables. 1,048 p. \$1.

Education. 149 p. (In Compendium, pt. 2; \$1.10.)

*Farms and homes, proprietorship, and indebtedness in United States, 1896. 658 p. \$1.10.

*Indians taxed and not taxed. 692 p. \$2.35.

*Insane, feeble-minded, deaf and dumb, and blind. 768 p. \$1.10.

*Insurance business: pt. 1, Fire, marine, and inland insurance. 1,133 p. \$1.

*—— pt. 2, Life insurance. 490 p. 70c.

*Manufacturing industries in United States: pt. 1, Totals for States and industries. 1,002 p. \$1.

*—— pt. 2, Statistics of cities. 827 p. 95c.

*—— pt. 3, Selected industries. 733 p. 85c.

*Mineral industries. 874 p. \$1.50.

*Occupations of population of United States. (Preliminary report.) 127 p. 15c.

*Population: pt. 1, By States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; foreign parentage; conjugal condition; school, militia, and voting ages; dwellings and families; Indians; Alaska. 1,181 p. \$1.35.

*—— pt. 2, Ages; school attendance; illiteracy; inability to speak English; citizenship of foreign-born males 21 years of age and over; occupations; soldiers and widows; inmates of soldiers' homes; education. 1,140 p. \$1.10.

*Population of United States by minor civil divisions as returned at Eleventh Census, June 1, 1890. 60c.

*Real-estate mortgages. 956 p. \$1.15.

*Social statistics of cities in United States. 146 p. 50c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- *Statistical atlas of United States based upon results of Eleventh Census. 70 p. 63 pl. \$4.
- Textiles. 240 p. (In Manufacturing industries, pt. 3; 85c.)
- *Transportation business in United States: pt. 1, Transportation by land. 875 p. 95c.
- pt. 2, Transportation by water. 532 p. 70c.
- *Vital and social statistics: pt. 1, Analysis and rate tables. 1,077 p. \$1.40.
- pt. 2, Cities of 100,000 population and upward. 1,191 p. \$1.35.
- pt. 3, Statistics of deaths. (Death rates, sex, color, age, cause.) 1,057 p. \$1.
- pt. 4, Statistics of deaths. (Sex, age, color, nativity, parentage, marital condition, occupation, cause.) 1,039 p. \$1.
- *Vital statistics covering period of six years ended May 3, 1890: Boston and Philadelphia. 278 p. 75c.
- District of Columbia and Baltimore. 250 p. 75c.
- New York and Brooklyn. 538 p. \$1.
- *Wealth, debt, and taxation: pt. 1, Public debt. 902 p. \$1.20.
- pt. 2, Valuation and taxation. 662 p. 80c.

TWELFTH CENSUS (1900) REPORTS.

- Abstract. 470 p. 30c.
- Agriculture: pt. 1, Farms, live stock, and animal products. 1,003 p. \$2.
- pt. 2, Crops and irrigation. 880 p. \$2.
- *Annual report of Director of the Census, 1899, 5 p., 5c.; 1900, 21 p., 5c.; 1901, 14 p., 5c.
- *Employees and wages, 1900. 289 p. \$2.
- *Manufactures: pt. 1, United States by industries. 1,039 p. \$2.
- pt. 2, States and Territories. 1,111 p. \$2.
- pt. 3, Selected industries, including combined textiles; flax, hemp, and jute products; dyeing and finishing textiles; clothing; collars and cuffs; buttons; cotton ginning; flouring and grist mill products; slaughtering and meat packing; cheese, butter, and condensed milk, factory product; canning and preserving; oleomargarine; salt; beet sugar; rice, cleaning and polishing; starch; cottonseed products; alcoholic liquors; tobacco; manufactured ice; leather, tanned, curried, and finished; boots and shoes; rubber boots and shoes; leather gloves and mittens; lumber; clay products; glass; turpentine and rosin; paper and pulp; printing and publishing. 1,143 p. \$2.
- pt. 4, Selected industries, including iron and steel; tin and terneplate; lead, copper, and zinc smelting and refining; electrical apparatus and supplies; shipbuilding; locomotives; cars, steam railroad; carriages and wagons; bicycles and tricycles; agricultural implements; metal-working machinery; motive-power appliances; sewing machines; needles and pins; typewriters; musical instruments and materials; watches and watchcases; pens and pencils; chemicals; petroleum refining; coke; manufactured gas; utilization of wastes and by-products patents in relation to manufactures. 996 p. \$2.
- Textiles (monograph). 258 p. 50c.
- *Population: pt. 1, States and Territories, counties, and minor civil divisions; sex; general nativity; color; place of birth; parentage; citizenship, and years in United States. 1,236 p. \$2.
- pt. 2, Ages, in detail; school, militia, and voting ages; conjugal condition; school attendance; illiteracy; inability to speak English; occupations; dwellings and families; proprietorship of homes. 978 p. \$2.
- *Population of United States by States and Territories, counties, and minor civil divisions. [From Twelfth Census, 1900, vol. 1, Population, pt. 1.] 480 p. 50c.
- *Statistical atlas, 1900. 298 p. \$4.
- Supplementary analysis and derivative tables (based on statistics of Twelfth Census). 1,162 p. \$2.
- *Vital statistics: pt. 1, Analysis and ratio tables. 1,009 p. \$2.
- pt. 2, Statistics of deaths. 1,061 p. \$2.

THIRTEENTH CENSUS (1910) REPORTS.

The volumes numbered 1 to 11 (comprising 10,887 pages), constituting the complete reports of the Permanent Census, which are listed below, were issued in limited editions, intended chiefly for libraries, institutions, and special students of statistics.

Because of the restricted distribution of these final reports, anyone desiring one or more of the volumes is asked to accompany his request by an explanatory statement which will justify the Director of the Census in placing his name upon the mailing list. *All such requests will be considered individually in connection with the explanatory statements.* This applies to requests for the final reports on any one of the main branches of the census, such as for the general volumes on population, agriculture, manufactures, or mines, as well as to requests for complete sets of the final reports. Individual requests of this character will be complied with as fully as the limited editions will permit.

Final reports of the Thirteenth Census.

- *Population: vol. 1, General report and analysis. 1,369 p. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Number of inhabitants; 104 p. 2. Color or race, nativity, and parentage; 122 p. 3. Sex distribution; 42 p. 4. Age distribution; 218 p. 5. Marital conditions; 182 p. 6. State of birth; 92 p. 7. Country of birth; 94 p. 8. Foreign white stock; 84 p. 9. Mother tongue; 58 p. 10. Year of immigration; 16 p. 11. Voting and militia ages; 64 p. 12. School attendance; 88 p. 13. Illiteracy; 80 p. 14. Inability to speak English; 20 p. 15. Dwellings and families; 8 p. 16. Ownership of homes; 74 p.] \$1.60.
- *— vol. 2, Reports by States, with statistics for counties, cities, and other civil divisions—Alabama to Montana. 1,160 p. \$1.50.
- vol. 3, Same—Nebraska to Wyoming, Alaska, Hawaii, and Porto Rico. 1,225 p. \$1.50.
- *— vol. 4, Occupation statistics. 615 p. [The following tables from this volume have been reprinted as separates: 3. Occupation statistics, cities of 100,000 and over; 57 p. 4. Occupation statistics, cities of 25,000 and over; 85 p. 5 and 9. Occupation statistics, Alaska, Hawaii, and Porto Rico; 19 p.] \$1.
- *Agriculture: vol. 5, General report and analysis. 927 p. \$1.40. [Each chapter of this volume was printed as a separate. The titles are as follows: 1. Farms and farm property; 70 p. 2. Farm tenure; 60 p. 3. Farm mortgages; 12 p. 4. Statistics of farms, classified by race, nativity, and tenure of farmers; 88 p. 5. Size of farms; 70 p. 6. Live stock on farms and elsewhere; 148 p. 7. Live-stock products and domestic animals sold or slaughtered on farms; 58 p. 8. Summary for all crops; 34 p. 9. Individual crops; 170 p. 10. Agricultural statistics, by counties; 92 p. 11. Irrigation; 50 p. 12. Plantations in the South; 13 p.]
- *— vol. 6, Reports by States, with statistics for counties—Alabama to Montana. 977 p. \$1.25.
- *— vol. 7, Same—Nebraska to Wyoming; Alaska, Hawaii, and Porto Rico. 1,013 p. \$1.35.
- *Manufactures: vol. 8, General report and analysis. 845 p. [The following portions of this volume have been reprinted as separates: Tables 5 and 6. Comparative summary, principal industries, by States, 1909, 1904, and 1899; establishments, persons engaged, power, capital, expenses, and value of products; industries, by States, 1909; 245 p. Chap. 15 and Table 1. Description of individual industries with principal statistics for each; 145 p.] \$1.10.
- *— vol. 9, Reports by States, with statistics for principal cities. 1,404 p. \$1.65.
- *— vol. 10, Reports for principal industries. 975 p. \$1.25. [Each of the reports for the industries shown in this volume was printed as a separate bulletin. The titles are as follows: Agricultural implements; 12 p. Automobiles, including bodies and parts; 17 p. Bicycles, motorcycles, and parts; 6 p. Blast furnace, steelworks and rolling mill, wire, and tinplate and terneplate industries; 80 p.^a Boots and shoes, including cut stock and findings; 20 p.^a Butter, cheese, and condensed milk; 23 p. Canning and preserving; 23 p. Carriages and wagons, including parts and

^aAvailable only from Superintendent of Documents and at price stated. See note on p. 2.
^aOut of print.

materials; 17 p. Chemicals [also included in Chemicals and allied products]; 22 p. Chemicals and allied products; general chemical industry; bone, carbon, and lampblack; dyestuffs and extracts; explosives; fertilizers; essential oils; paint and varnish; sulphuric, nitric, and mixed acids; wood distillation; 99 p. Clay products; 26 p. Coke; 10 p. Cordage and twine and jute and linen goods [also included in Textiles]; 11 p. Cotton goods, including cotton small wares [also included in Textiles]; 30 p. Dyeing and finishing textiles [also included in Textiles]; 10 p. Dyestuffs and extracts [also included in Chemicals and allied products]; 7 p. Electrical machinery, apparatus, and supplies; 17 p. Essential oils [also included in Chemicals and allied products]; 6 p. Explosives [also included in Chemicals and allied products]; 7 p. Fertilizers [also included in Chemicals and allied products]; 13 p.^a Flour-mill and gristmill products; 24 p.^a Fur-felt hats [also included in Textiles]; 8 p. Gas, illuminating and heating; 19 p. Glass; 12 p. Glucose and starch; 8 p. Hosiery and knit goods [also included in Textiles]; 25 p. Ice, manufactured; 15 p. Leather; 19 p.^a Leather gloves and mittens; 12 p. Lumber; 24 p. Musical instruments and phonographs and graphophones; 17 p. Oilcloth and linoleum; 7 p. Paint and varnish [also included in Chemicals and allied products]; 13 p.^a Paper and wood pulp; 16 p.^a Petroleum refining; 10 p.^a Printing and publishing; 41 p. Rice cleaning and polishing; 9 p. Salt; 7 p. Shipbuilding, including boat building; 19 p. Silk manufactures [also included in Textiles]; 25 p. Slaughtering and meat packing; 23 p. Soap; 11 p. Statistics of manufactures for metropolitan districts [includes statistics of manufactures for New York City, Chicago, Philadelphia, Pittsburgh, Boston, St. Louis, Cleveland, Buffalo, Detroit, Cincinnati, Baltimore, Minneapolis-St. Paul, and San Francisco-Oakland]; 77 p. Steam laundries; 15 p.^a Sugar; 15 p. Sulphuric, nitric, and mixed acids [also included in Chemicals and allied products]; 9 p. Textiles: Combined textiles; cotton manufactures; hosiery and knit goods; woolen, worsted, and felt goods, and wool hats; carpets and rugs; shoddy; wool pulling and wool scouring; fur-felt hats; silk manufactures; cordage and twine and jute and linen goods; dyeing and finishing textiles; 176 p. Turpentine and rosin; 18 p. Woolen, worsted, and felt goods, wool hats; carpets and rugs, and shoddy; wool pulling and wool scouring [also included in Textiles]; 48 p.]

*Mining: vol. 11, Mines and quarries. 369 p. 65c.

Abstract of the Census, with State supplements.

The Abstract of the Census, a volume of 569 pages, which is intended for general distribution, is prepared in such a way as to meet the needs of most persons desiring information concerning the results of the census. It contains in tabular form all important census statistics for the United States as a whole and for each State and principal city, together with a brief text and diagrams and maps presenting and explaining the figures and their meaning. The Abstract, therefore, is a condensation of the complete census reports, both tables and text, and not merely a compilation of tables.

The Abstract is issued in 53 editions—one without supplement and each of the others including a supplement for some one State or for the District of Columbia, Alaska, Hawaii, or Porto Rico. The supplement contains full and detailed statistics, with text discussion, for the State and its counties, cities, and other civil divisions, with respect to population, agriculture, manufactures, and mines and quarries. The information for each State thus printed with the Abstract is identical, or practically so, with the matter relating to the same State given in volumes 2 and 3 (Population), 6 and 7 (Agriculture), 9 (Manufactures), and 11 (Mines and quarries).

As a compact reference work of general and local interest the Abstract is more convenient and useful for most persons than the voluminous final reports.

The following list gives a summary of the contents of the Abstract, by chapters:

Introduction:

Population: 1. Number and distribution of inhabitants. 2. Color or race; nativity, and parentage; sex; population 21 years of age and over; males of militia age. 3. Age and marital condition. 4. State of birth of native population. 5. Population of foreign birth and foreign parentage, by country of origin. 6. Foreign-born population, date of immigration. 7. School attendance and illiteracy. 8. Dwellings and families.

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a Out of print.

Agriculture: 9. Farms and farm property. 10. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms. 11. Live stock on farms and elsewhere. 12. Live-stock products, and domestic animals sold or slaughtered on farms. 13. Farm crops—Acreage, production, and value. 14. Irrigation and irrigated crops.

Manufactures: 15. Statistics for States, cities, and industries.

Mines and quarries: 16. Statistics for States and industries. \$1.

State supplements.

These supplements vary in size from 37 pages (District of Columbia) to 225 pages (New York).

Alabama, 20c.; Alaska, 10c.;* Arizona, 15c.;* Arkansas, 20c.;* California, 25c.;* Connecticut, 20c.; Delaware, 10c.;* District of Columbia, 10c.;* Florida, 20c.;* Georgia, 25c.; Hawaii, 10c.; Idaho, 15c.; Illinois, 30c.;* Indiana, 25c.; Iowa, 25c.; Kansas, 25c.; Kentucky, 25c.; Louisiana, 20c.; Maine, 15c.; Maryland, 15c.; Massachusetts, 20c.; Michigan, 25c.; Minnesota, 25c.; Mississippi, 15c.; Missouri, 25c.; Montana, 20c.; Nebraska, 20c.; Nevada, 15c.; New Hampshire, 15c.; New Jersey, 20c.; New Mexico, 15c.; New York, 35c.; North Carolina, 20c.; North Dakota, 15c.; Ohio, 30c.; Oklahoma, 20c.; Oregon, 20c.; Pennsylvania, 30c.; Porto Rico, 15c.; Rhode Island, 15c.; South Carolina, 15c.; South Dakota, 20c.;* Tennessee, 20c.; Texas, 40c.; Utah, 15c.; Vermont, 15c.; Virginia, 25c.; Washington, 20c.; West Virginia, 15c.; Wisconsin, 20c.; and Wyoming, 15c.

Abstract bulletins.

Abstract bulletins present the general results of the census for the country as a whole by States, and where practicable, by large cities. The matter contained in these bulletins appears in the same or in similar form in the Abstract and has been printed in greater detail in the volumes of the final reports. Following is a list of the Abstract bulletins:

Population: Statistics of number and distribution of inhabitants; 55 p.; Color or race, nativity, parentage, sex, and males of voting and militia ages [reprint of chap. 2 of Abstract]; 43 p. 5c. Age and marital condition [reprint of chap. 3 of Abstract]; 47 p. 5c. State of birth of native population [reprint of chap. 4 of Abstract]; 18 p. 5c. Country of origin of population of foreign birth and parentage and year of immigration of foreign born [reprint of chaps. 5 and 6 of Abstract]; 32 p. 5c. School attendance and illiteracy [reprint of chap. 7 of Abstract]; 39 p. 5c.

Agriculture: Farms and farm property; 20 p. General farm crops; 28 p. Live stock on farms and elsewhere; 34 p. 5c. Tenure, mortgage indebtedness, color and nativity of farmers, and size of farms; 24 p. 5c. Crops; 59 p. 10c. Live-stock products, and domestic animals sold or slaughtered on farms; 16 p. 5c.

Irrigation: Farms and acreage irrigated, irrigation works, cost of operation and maintenance, and crops grown under irrigation [reprint of chap. 14 of Abstract]; 12 p. 5c.

Manufactures: Manufactures, by States, cities, and industries; 96 p. 10c.

Mines: Statistics of mining, for industries and States; 24 p. 5c.

Miscellaneous bulletins.

In addition to the bulletins already listed, which are designed for more general distribution, there have been issued the following bulletins containing additional data and discussion regarding selected topics. All of the matter contained in these bulletins appears in the final volumes.

Center of population and median lines, continental United States. 8 p. 5c.

Cities and their suburbs. 6 p.

*Irrigation: Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas; 28 p. 5c.

Occupation statistics [summary of vol. 4 of final reports]. 107 p. 20c.

*Population of counties and equivalent subdivisions. 30 p. 5c.

Population of counties and minor civil divisions, 1910, 1900, and 1890. 596 p. 65c.

Population of incorporated places. 111 p. 15c.

Statistics of manufactures for metropolitan districts, 1909. 77 p. 15c.

Total population and area of the United States, by States and Territories. 16 p. 5c.

Special bulletins.

The six bulletins named below contain statistical compilations not found in the final reports of the Thirteenth Census.

Age of farmers, by color of operator, character of tenure, and size of farm. 35 p. 10c.

Chinese and Japanese in the United States. 50 p. 15c.

Irrigation for rice growing—Louisiana, Texas, and Arkansas. 14 p. [The material contained in this bulletin, though not found in final reports, appears in Abstract supplements for States named.] 5c.

Population of New York City, by enumeration districts. 23 p. 5c.

Stability of farm operators, or term of occupancy of farms. 22 p. 5c.

Statistics of Indian population—Number, tribes, sex, age, fecundity, and vitality. 25 p. 5c.

INTERCENSAL REPORTS (1900-1917).

[See also publications listed under various headings, pp. 13-20.]

Benevolent institutions: 1904, 335 p., 50c.; 1910, 411 p., 75c.

Blind and deaf: 1900. 274 p. 60c.

Blind population of United States: 1910. 342 p. 75c.

*Central electric light and power stations: 1902, 185 p., 50c.; 1907, 198 p., 70c.

Central electric light and power stations and street and electric railways: 1912. 440 p. \$1.

Century of population growth from First Census of United States to Twelfth: 1790-1900. 313 p. \$1.10.

Deaf mutes in United States: Analysis of statistics of 1910, with summary of State laws to Jan. 1, 1918. 221 p. 50c.

Electrical industries: 1902. 822 p. \$1.65.

Express business in United States: 1907. 28 p. 10c.

Financial statistics of cities having population of over 30,000: 1905, 372 p., 50c.; 1906, 358 p., paper, 50c.; 1909, 279 p., 55c.; 1910, 308 p., 60c.; 1911, 401 p., 75c.; 1915, 338 p.; 1916, 375 p., \$1; 1917, 373 p.

Financial statistics of States: 1915, 125 p., 50 c.; 1916, 127 p.; 1917, 129 p.*

Fire departments of cities having a population of over 30,000: 1917. 105 p. 15c.

Fisheries: 1908—Persons employed, salaries and wages, capital and equipment, products, canning and preserving, exports and imports. 324 p. 70c.

General statistics of cities having population of over 30,000: 1909, pt. 1, Sewers and sewer service; pt. 2, Refuse disposal service; pt. 3, Street-cleaning service; pt. 4, Dust-prevention service; pt. 5, Highways and general highway service; pt. 6, Statistics of salaries and wages. 197 p. 45c.

— 1915, pt. 1, Governmental organizations; pt. 2, Police departments; pt. 3, Liquor traffic; pt. 4, Municipally owned water-supply systems and water rates. 185 p. 55c.

— 1916, pt. 1, Parks; pt. 2, Playgrounds; pt. 3, Museums and art galleries; pt. 4, Zoological collections; pt. 5, Music and entertainments; pt. 6, Swimming pools and bathing beaches; pt. 7, Other features of the recreation service. 88 p. 20c.

Indians in United States and Alaska: 1910. 285 p. 65c.

Insane and feeble-minded in institutions: 1904, 238 p., cloth, 60c.; paper, 25c.; 1910, 217 p., 55c.

Manufactures: 1905, pt. 1, United States by industries. 1,030 p. \$1.35.

*— pt. 2, States and Territories. 1,244 p. \$1.50.

*— pt. 3, Selected industries. 968 p. \$1.30.

*— pt. 4, Selected industries. 856 p. \$1.75.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- *Manufactures: 1914, Vol. I, States, with statistics for principal cities and metropolitan districts. 1,677 p. \$2.25.
- *—— Vol. II, Selected industries and detailed statistics for industries by States. In press.
- Marriage and divorce: 1867–1906, pt. 1, 535 p., \$1; pt. 2, General tables, 850 p., \$1.50.
- 1916, 47 p. 10c.
- Mines and quarries: 1902. 1,153 p. \$1.50.
- Mortality: 1900–1904, 1,003 p., \$1.25; 1905, 360 p., \$1; 1906, 486 p., 80c.; 1907, 538 p., \$1.25; 1908, 706 p., \$1.10;* 1909, 870 p., \$1.25; 1910, 611 p., 90c.* 1911, 572 p., \$1; 1912, 382 p., 75c.; 1913, 631 p., 90c.* 1914, 714 p., \$1; 1915, 707 p., \$1.25; 1916, 543 p. \$1.
- Municipal markets in cities having a population of over 30,000: 1918. 56 p. In press.
- Negro population: 1790–1915. 844 p. \$1.50.
- Paupers in almshouses: 1904, 216 p., cloth, 60c.; paper, 25c.; 1910, 141 p., 50c.
- Plantation farming in United States. 22 p. 10c.
- *Prisoners and juvenile delinquents, 1904. 295 p. Paper, 40c.; cloth, 70c.
- Prisoners and juvenile delinquents: An analysis of statistics of 1910. 535 p. \$2.
- *Religious bodies: 1906, pt. 1, Summary and general tables, 576 p., \$1; pt. 2, Separate denominations: History, description, and statistics, 670 p., \$1.
- Ship building, including boat building, 1914–1916. 35 p. In press.
- Specified sources of municipal revenues of cities having a population of over 30,000; 1917. 140 p.
- *Street and electric railways, 1902, 452 p., 75c.; 1907, 576 p., \$1.10.
- Telephones and telegraphs: 1902. 184 p. Cloth, 75c.
- Telephones: 1907 (for Telegraph systems: 1907, see Bulletin 102). 129 p., 55c.
- Telephones and telegraphs and municipal electric fire-alarm and police-patrol signaling systems: 1912. 208 p. 50c.
- Transportation by water: 1906. 240 p. 90c.
- *Wealth, debt, and taxation, 1900–1904. 1,246 p. \$2.
- 1913, vol. 1, 886 p., \$1.25; vol. 2, 756 p., \$1.

INTERCENSAL BULLETINS (1900–1917).

[To accommodate for alphabetical arrangement, bulletin number is placed at conclusion of title.]

The following is a complete list of the intercensal bulletins available for distribution. Many of these bulletins contain important statistical material not to be found in any other publications of the Bureau. Others, notably those relating to the census of manufactures, are made up practically of literal extracts or chapters taken from forthcoming reports of the census or of such important preliminary statistics as may be rapidly tabulated. Still others represent condensations or summarizations of material contained in the reports proper. These facts and figures are presented in this form in order to permit their speedy publication or that separate distribution may be made of material bearing on particular subjects. Miscellaneous unnumbered bulletins and pamphlets issued by the Bureau of the Census are listed on pages 19–20.

Miscellaneous.

- Age statistics, discussion: 1880, 1890, 1900–13. 53 p.
- Blind population of United States: 1910–130. 52 p. 15c.
- Central electric light and power stations and street and electric railways: 1912–124. 113 p. 25c.
- *Child labor in District of Columbia: Twelfth Census, 1900–68. 21 p. 10c.
- *Child labor in United States: Twelfth Census, 1900–69. 200 p. 25c.
- Chinese and Japanese in United States: 1910–127. 50 p. 15c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- Commercial valuation of railway operating property in United States: 1904—21. 88 p. 10c.
- Cotton ginned in United States: Crops of 1899 to 1902, inclusive—2, 46 p., 5c.; 1899 to 1903—10, 10c.;* 1900 to 1904—19, 10c.*
- Cotton production: 1905^a—40, 72 p., 10c.; 1906—76, 68 p., 10c.; 1907—95, 58 p., 15c.; 1908—100, 63 p., 15c.;* 1909—107, 64 p., 10c.; 1910^a—111, 66 p., 15c.; 1911—114, 61 p., 10c.; 1912—116, 63 p., 10c.; 1913—125, 79 p., 15c.
- Cotton production and distribution: 1914—15—131, 102 p., 10c.; 1915—16—134, 99 p., 20c.; 1916—17—135, 144 p., 15c.;* 1917—18—137 p. 15c.
- Cotton supply and distribution for year ended Aug. 31, 1905—25, 15 p.; 1906—63, 25 p., 10c.;* 1907—90, 26 p., 10c.; 1908—97, 40 p., 15c.; 1909—106, 32 p., 10c.; 1910—110, 32 p., 5c.; 1911—113, 31 p., 10c.; 1912—115, 31 p., 10c.; 1913—117, 40 p., 10c.; 1914—128, 30 p., 10c.
- Deaf and dumb population of United States: 1910. 8 p. 5c.
- *Discussion of increase of population: 1903—4. 63 p. 10c.
- *Earnings of wage earners (a study based on census of manufactures, 1906)—93. 179 p. 25c.
- Electrical industries of Porto Rico: 1907—99. 29 p. 10c.
- *Estimates of population: 1904, 1905, 1906—71, 28 p., 10c.; 1910—1914—122, 12 p., 5c.; 1910—1917—138, 57 p. 10c.
- Estimates of population of larger cities of United States in 1901—1903—7. 21 p.
- Executive civil service of United States, statistics of employees: 1907—94, 164 p.
- Financial statistics of cities having population of 8,000 to 25,000: 1903—45. 231 p. 25c.
- Financial statistics of cities having population of over 25,000: 1902 and 1903—20. 481 p. 40c.
- Financial statistics of cities having population of over 30,000: 1904—50, 209 p., 25c.; 1907 (abstract of annual report)—105, 94 p., 15c.; 1912—118, 83 p., 15c.;* 1913—126, 73 p., 15c.; 1915—132, 117 p., 25c.
- Geographical distribution of population: 1880, 1890, and 1900—1. 24 p. 5c.
- Illiteracy in United States (study based on reports of Twelfth and preceding Censuses)—28. 54 p. 10c.
- Increase of population: 1890 to 1900, discussion of—4. 63 p. 10c.
- Industrial districts: 1905. Manufactures and population—101. 81 p. 15c.
- Insane and feeble-minded in institutions: 1910—119. 99 p. 20c.
- Insular and municipal finances in Porto Rico for fiscal year 1902—3—24. 31 p. 5c.
- *Irrigation in United States: 1902—16. 92 p. 10c.
- Marriage and divorce: 1887—1906—96. 71 p. 15c.
- Mineral industries of Porto Rico: 1902—6. 18 p. 15c.
- Mines and quarries: 1902—9. 59 p. 10c.
- Mortality statistics: 1908—104, 133 p., 20c.;* 1909—108, 138 p., 20c.;* 1910—109, 191 p., 30c.; 1911—112, 142 p., 25c.*
- Municipal electric fire-alarm and police-patrol systems: 1902—11. 33 p. 10c.
- Negroes in the United States: 1910—129. 207 p. 35c.
- Paupers in almshouses: 1910—120. 99 p. 20c.
- Population of Oklahoma and Indian Territory: 1907—89. 43 p. 15c.
- Prisoners and juvenile delinquents: 1910—121. 130 p. 15c. *
- Proportion of children in United States (study based on reports of Twelfth and preceding Censuses)—22. 27 p. 5c.
- Proportion of sexes in United States (study based on reports of Twelfth and preceding Censuses)—14. 51 p. 10c.
- *Religious bodies: 1906 (2d ed. rev. and enl.)—103. 149 p. 20c.
- *Street and electric railways, 1912—3. 193 p. 5c.
- Supervisors districts for Thirteenth Census: 1910—98. 19 p. 15c.

^aAvailable only from Superintendent of Documents and at price stated. See note on p. 2.

*The statistics of cottonseed products, gathered at the quinquennial census of manufactures, are also shown in this bulletin.

Teachers, statistics (study based on reports of Twelfth and preceding Censuses)—23. 20 p. 5c.

Telegraph systems: 1907—102. 47 p. 25c.

Telephones and telegraphs: 1902—17, 49 p., 10c.; 1912—123, 26 p., 10c.

Transportation by water: 1906. United States—91. 57 p. 10c.

Vital statistics of the Twelfth Census: 1900, a discussion of—15. 24 p. 10c.

Wealth, debt, and taxation.

The statistics presented in these bulletins are reproduced in Volumes I and II of the report on Wealth, Debt, and Taxation: 1913.

Abstract of special bulletins: 1913. 63 p. 10c.

Assessed valuation of property and amounts and rates of levy: 1860—1912. 176 p. 35c.

County and municipal indebtedness: 1913, 1902, and 1890; and sinking-fund assets, 1913. 228 p. 25c.

County revenues, expenditures, and public properties: 1913. 338 p. 50c.

Estimated valuation of national wealth: 1850—1912. 20 p. 10c.

*Municipal revenues, expenditures, and public properties: 1913. 378 p. 70c.

National and State indebtedness and funds and investments: 1870—1913. 203 p. 40c.

National and State revenues and expenditures, 1913 and 1903; and public properties of States, 1913. 44 p. 10c.

Taxation and revenue systems of State and local governments: 1913. 275 p. 50c.

Manufactures, census of 1905—Special industries.

The statistics presented in these bulletins are reproduced in Parts 3 and 4 of the Report on Manufactures, 1905.

Agricultural implements—75. 31 p. 10c.

Automobiles and bicycles and tricycles—66. 37 p. 10c.

Boots and shoes, leather, and leather gloves and mittens—72. 81 p. 15c.

Butter, cheese, and condensed milk, flour and grist mill products, and starch—64. 92 p. 15c.

Canning and preserving, rice cleaning and polishing, and manufacture of beet sugar—61. 69 p. 10c.

Carriages and wagons and steam and street railroad car industry—84. 75 p. 15c.

Chemicals and allied products—92. 124 p. 20c.

Copper, lead, and zinc, smelting and refining—86. 32 p. 10c.

Electrical machinery, apparatus and supplies—73. 73 p. 20c.

Glass and clay products—62. 107 p. 15c.

Iron and steel and tin and terne plate—78. 105 p. 15c.

*Lumber and timber products—77. 69 p. 20c.

Metal-working machinery—67. 18 p. 10c.

Musical instruments, attachments, and materials—82. 34 p. 10c.

*Paper and wood pulp—80. 43 p. 10c.

Pens and pencils, buttons, needles, pins, and hooks and eyes, oilcloth and linoleum, and turpentine and rosin—85. 51 p. 10c.

Petroleum refining—70. 57 p. 15c.

Power employed in manufactures—88. 27 p. 10c.

Printing and publishing—79. 133 p. 20c.

Shipbuilding—81. 29 p. 10c.

*Slaughtering and meat packing, manufactured ice and salt—83. 83 p. 15c.

*Textiles—74. 212 p. 30c.

Tobacco—87. 33 p. 10c.

Manufactures, census of 1905—States and Territories.

The statistics presented in these bulletins are reproduced in Part 2 of the Report on Manufactures, 1905.

- *United States—57. 93 p. 15c.
 Alabama—43. 23 p. 10c.
 Arizona, Indian Territory, New Mexico, and Oklahoma—30. 35 p. 10c.
 California, Oregon, and Washington—49. 73 p. 10c.
 Colorado, Idaho, Nevada, and Utah—37. 49 p. 10c.
 Connecticut—42. 39 p. 10c.
 Delaware—31. 15 p. 10c.
 Florida—33. 17 p. 10c.
 Georgia—55. 23 p. 10c.
 Illinois—52. 53 p. 10c.
 Indiana—38. 37 p. 10c.
 Iowa—32. 27 p. 10c.
 Kansas—28. 25 p. 10c.
 Kentucky and Tennessee—47. 45 p. 10c.
 Louisiana, Mississippi, and Texas—48. 57 p. 10c.
 Maine—51. 25 p. 10c.
 Maryland and District of Columbia—27. 33 p. 10c.
 Massachusetts—53. 79 p. 10c.
 Michigan—18. 35 p. 10c.
 Minnesota—46. 27 p. 10c.
 Missouri and Arkansas—35. 47 p. 10c.
 Montana, North Dakota, South Dakota, and Wyoming—34. 39 p. 10c.
 Nebraska—29. 19 p. 10c.
 New Hampshire and Vermont—41. 35 p. 10c.
 New Jersey—54. 53 p. 10c.
 New York—59. 101 p. 15c.
 North Carolina and South Carolina—39. 37 p. 10c.
 Ohio—58. 61 p. 10c.
 Pennsylvania—60. 81 p. 15c.
 Rhode Island—36. 29 p. 5c.
 Virginia and West Virginia—44. 43 p. 10c.
 Wisconsin—56. 39 p. 10c.

Manufactures, census of 1914—Special industries.

This series of pamphlets presents for 40 industries the statistics compiled by the Bureau of the Census from the returns of the census of manufactures for 1914, as follows:

Agricultural implements. 5c.	Electrical machinery, apparatus, and supplies. 5c.
Automobiles, including bodies and parts. 5c.	Engines and machinery. 5c.
Brass, bronze, and copper products. 5c.	Flour-mill and grist-mill products. 5c.
Butter, cheese, and condensed milk. 5c.	Gas, manufacture of. 5c.
Buttons, manufacture of. 5c.	Glass, manufacture of. 5c.
Canning and preserving. 5c.	Glucose and starch industry. 5c.
Carriages and wagons. 5c.	Hosiery and knit goods. 5c.
Cast-iron pipe. 5c.	Ice, manufactured. 5c.
Chemicals. 15c.	Iron and steel. 10c.
Clothing, manufacture of. 5c.	Leather industry. 10c.
Cotton manufactures. 5c.	Motorcycles, bicycles, and parts. 5c.

Musical instruments, including phonographs, graphophones, and talking machines. 5c.	Rubber industry. 5c.
Needles and pins and hooks and eyes. 5c.	Silk industry. 5c.
Oilcloth and linoleum. 5c.	Slaughtering and meat packing. 5c.
Paper and wood pulp. 5c.	Soap industry. 5c.
Patent and proprietary medicines and compounds, and druggists' preparations. 5c.	Steam and electric cars and railroad repair shops. 5c.
Petroleum refining. 5c.	Sugar industry. 5c.
Power laundries. 5c.	Textiles, including cordage and twine, jute goods, and linen goods; flax and hemp, dressed; fur-felt hats; dyeing and finishing textiles; haircloth; mats and matting. 5c.
Printing and publishing. 10c.	Turpentine and rosin.
*Rice cleaning and polishing. 5c.	Wool manufactures. 10c.

Manufactures, census of 1914—States.

This series of pamphlets presents the general statistics for the various States and the District of Columbia gathered at the census of manufactures for 1914, with comparative figures for previous censuses. The statistics are presented in three sections: General statistics, showing for the principal industries the number of persons engaged, prevailing hours of labor, location of establishments, character of ownership, etc.; special statistics, giving detailed data for the principal industries of the States; and general tables, in which are given a comparative summary of all industries combined and specified industries for the State and for cities of 10,000 inhabitants or more for the census years 1904, 1909, and 1914.

Manufactures, Census of 1914—Miscellaneous.

Abstract of census of manufactures, 1914. 728 p. 65c.
General tables for United States, by geographic divisions, States, and industries 1914, 1909, 1904, and 1899. 26 p.

MISCELLANEOUS INTERCENSAL PUBLICATIONS.

Forest products.

These publications, of octavo size, were compiled by the Bureau in cooperation with the Forest Service, Department of Agriculture, and issued annually from 1907 to 1912, inclusive. Similar reports for 1905 and 1906 were published by the Forest Service. The annual collection of these statistics was discontinued upon the issuance of the report for 1912.

1. Pulp-wood consumption: 1908, 12 p., 5c.;* 1910, 10 p., 5c.;* 1911, 10 p., 5c.
2. Lumber, lath, and shingles: 1908, 57 p., 10c.;* 1909, 63 p., 5c.;* 1910, 45 p., 5c.; 1911, 45 p., 5c.*
3. Slack cooperage stock: 1907, 11 p., 5c.; 1908, 12 p., 5c.;* 1909, 14 p., 5c.;* 1911, 8 p., 5c.
- 4.^a Tanbark and tanning extracts: 1907, 10 p., 5c.; 1908, 10 p., 5c.
4. Excelsior: 1911. 4 p. 5c.
5. Veneers: 1907, 9 p., 5c.; 1908, 13 p., 5c.; 1910, 6 p., 5c.
6. Tight cooperage stock: 1907, 11 p., 5c.;* 1908, 12 p., 5c.; 1909, 14 p., 5c.; 1911, 12 p., 5c.
7. Wood distillation: 1907, 8 p., 5c.; 1911, 6 p.
8. Crossties purchased: 1907, 6 p., 5c.; 1908, 8 p., 5c.; 1909, 11 p., 5c.; 1911, 8 p., 5c.
9. Poles purchased: 1907, 8 p., 5c.; 1908, 8 p., 5c.; 1909, 14 p., 5c.; 1910, 7 p., 5c.;* 1911, 7 p., 5c.
- 10.^b Forest products of United States: 1908, 137 p.; 1909, 178 p.

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a This pamphlet was not issued for 1910 and 1911.

^b No. 10 is a consolidation, without change, of Nos. 1 to 9.

Heads of families—First Census of the United States: 1790.

These publications, of quarto size, are for sale only, at the price of \$1 per volume. Remittance should accompany the request, addressed to the Director of the Census.

The First Census covered the States of Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The returns for Delaware, Georgia, Kentucky, New Jersey, Tennessee, and Virginia were destroyed.

The following volumes have been issued: Connecticut (227 p.); Maine (105 p.); Maryland (189 p.); Massachusetts (363 p.); New Hampshire (146 p.); New York (308 p.); North Carolina (292 p.); Pennsylvania (426 p.); Rhode Island (71 p.); South Carolina (150 p.); Vermont (95 p.); Virginia, State enumerations, from 1782 to 1785 (189 p.).

Each of these volumes contains the full names of all heads of families enumerated at the census of 1790 in the State to which the volume relates. The number of members of each family is shown, classified as free or slave. Free persons are classified as white or other, free whites as male or female, and free white males as over or under 16.

Philippine Islands, census of 1903.

On September 25, 1902, pursuant to act of Congress approved July 1, 1902, the President directed that the census of the Philippine Islands be taken by the Philippine Commission, and that the United States Census Bureau compile and tabulate the returns and print and distribute the completed reports. These reports were issued in English and Spanish. The Spanish edition is now exhausted. The titles of the English reports are as follows:

*Vol. I, Geography, history, population. 620 p. \$1.

*Vol. II, Population. 1048 p. 75c.

*Vol. III, Mortality, defective classes, education, families and dwellings. 740 p. 75c.

*Vol. IV, Agriculture, social, and industrial statistics. 638 p. \$1.

In addition to the English reports, three bulletins of the following titles, compiled from these reports, in English only, are available:

*1. Population of Philippines. 100 p. 10c.

*2. Climate of Philippines. 103 p. 10c.

*3. Volcanoes and seismic centers of Philippine Archipelago. 80 p. 10c.

Cuba, census of 1907.

The Cuban census of 1907 was taken by order of the provisional government, and the material was compiled and published, under the direction of the director of the Cuban census, by the Bureau of the Census. The report was printed in Spanish. In order to meet the demand of the United States for information regarding Cuba, the provisional governor of the Republic authorized the director of the Cuban census of 1907 to prepare a compendium, printed in English. The Department's editions of both volumes are exhausted, but the English compendium may be obtained from the Superintendent of Documents.

*Cuba: Population, history, and resources: 1907 (compendium). 275 p. 50c.

Vital statistics.

Birth statistics for the registration area of United States: 1915, 78 p., 20c.; 1916, 96 p. 20c.

*Extension of registration area for births and deaths, practical example of cooperative census methods as applied to State of Pennsylvania, 1906. 51 p. 10c.

Federal registration service of United States: Its development, problems, and defects. 86 p. 10c.

- *Index of joint causes of death: 1914. 308 p.
- International classification of causes of sickness and death: 1910. 146 p. 25c.
- Manual of international list of causes of death: 1917. 309 p.
- Modes of statement of cause of death and duration of illness upon certificates of death: 1907. 81 p.
- Mortality from cancer and other malignant tumors in registration area of United States: 1914. 212 p. 30c.
- Physicians' pocket reference to international list of causes of death: 1917. 28 p. 5c.
- Practical registration methods: 1903. 29 p. 5c.
- Tuberculosis in United States: 1908. 67 p. 15c.
- United States life tables, 1910. 65 p. 75c.

MISCELLANEOUS.

- Annual report of Director, 1918.^a 28 p.
- American census taking. 34 p.
- *Census Office and coordination of statistics. 43 p. 10c.
- Census publications available for distribution by Bureau. Apr. 1, 1919. 16 p.
- Comparative financial statistics of cities under council and commission government. 1913 and 1915. 15 p. 5c.
- *Cotton production in United States, crop of 1917. 39 p. 5c.
- Federal estimates of population and Federal supervision of local censuses. (Circular 4.) 15 p. 5c.
- History and growth of United States census: 1790-1890. 967 p. 70c.
- *Index to occupations, alphabetical and classified. 414 p. 75c.
- Leaf tobacco—Report on quantity held by manufacturers and dealers Apr. 1, 1915. 22 p. 5c.
- List of Bureau of Census publications: 1790-1916. 124 p. 10c.
- *Official register, 1917. 896 p. \$1.50.
- *Rank of several States in population, value of crops, etc., census of 1900 and 1910. 2 p. 5c.
- Special census of population of Hamtramck, Mich., June 25, 1915. 16 p. 5c.
- St. Clair Heights, Mich., Nov. 18, 1915. 4 p.
- Tulsa, Okla., Apr. 15, 1915. 16 p. 10c.
- El Paso, Tex., Jan. 15, 1916. 7 p.
- Highland Park, Mich., Nov. 15, 1915. 8 p.
- Shreveport, La., Feb. 15, 1917. 8 p.
- Okmulgee County, Okla., Aug. 15, 1918. 16 p.
- Ottawa County, Okla., Dec. 16, 1918. 15 p.
- Tulsa County, Okla., Jan. 15, 1919. 19 p.
- Standard form for reporting financial statistics of public schools: 1911. 28 p.
- *Statistical atlas of United States: 1914. 602 p. 503 pl. 99 text fig. \$2.50.
- Stocks of leaf tobacco and the American production, imports, exports, and consumption of tobacco and tobacco products: 1917. 44 p.
- Study of cartage costs in city of Washington. 14 p.
- Summary of State laws relating to care of dependent classes: 1911. 346 p. 40c.
- Tentative program of Bureau of the Census: 1916-1919. 14 p.
- The story of the census: 1790-1916. 38 p.
- Uniform accounts as basis for standard forms for reporting financial and other statistics of health departments: 1912. 16 p. 5c.
- Uniform municipal accounting: 1906. 121 p. 25c.
- Virgin Islands, census of, Nov. 1, 1917. 174 p. 20c.
- War commodities: Antimony and graphite crucibles. 10 p. 9 text fig. 5c.

^aAvailable only from Superintendent of Documents and at price stated. See note on p. 2.

^bThe Superintendent of Documents can supply copies of annual reports for each year since 1908, with the exception of 1911, 1914, 1915, and 1916, at 5 cents each.

War commodities; Iron and steel products. 16 p. 5c.

——— Leather statistics. 11 p. 5c.

——— Textile fibers—Wool, silk, jute, and kapok. 16 p. 20 text fig.

Work of Permanent Census Bureau: 1902-1913. 31 p.

COAST AND GEODETIC SURVEY.

In addition to the Annual Report of the Superintendent detailing the progress made in the work, the Coast and Geodetic Survey issues special pamphlets on the subjects of astronomy, geodesy, topography, hydrography, terrestrial magnetism, the tides and related subjects, charts and chart catalogues, coast and inland pilots, coast pilot notes and sailing directions, and other miscellaneous publications. The general publications may be obtained without charge upon application to the Coast and Geodetic Survey, so long as the supply for free distribution is not exhausted. Many of them can be purchased from the Superintendent of Documents, Government Printing Office. The prices stated in this list refer only to copies sold by the Superintendent of Documents, except in the case of Charts, Coast Pilots, Inside Route Pilots, and Tide Tables.

For convenient identification future publications and revised editions of former publications of the Survey will have a serial number on the upper left-hand corner of cover and title-page, which should be referred to when copies of a publication bearing a serial number are requested.

The publications giving results of the geodetic, magnetic, and hydrographic work furnish geographic positions, elevations, depths of water, data concerning changes in coast line or in depths in channels and harbors, and information relating to terrestrial magnetism, in convenient form for the use of engineers, surveyors, railroad officials, State and municipal governments, other departments of the General Government, or those engaged in any work of development, construction, or improvement.

The List and Catalogue, which is a bibliography of the publications issued by the Survey prior to 1909 may be obtained without charge from the Division of Publications, Department of Commerce, or may be consulted at all depositories of public documents and at many public libraries. The List of Publications issued by the Department contains only those publications available for distribution at the present time.

Coast Pilots, Inside Route Pilots, Tide Tables, and Charts are sold by the Superintendent of the Coast and Geodetic Survey, Washington, D. C., at the cost of printing. Chart catalogues containing also lists of the Coast Pilots, Inside Route Pilots, and Tide Tables can be obtained free of charge on application to the office of the Survey. The catalogue contains a list of agents for the sale of charts in the principal seaports. There is a separate list of charts of the Philippine Islands.

The Survey publishes 658 charts on different scales, for general or local use, covering the coasts of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands; also magnetic variation charts of the United States, the West Indies, Alaska, and the Philippine Islands.

Ten Coast Pilot volumes are issued, covering the Atlantic, Gulf, and Pacific coasts, and the coast of Alaska. In addition, there are published six volumes of sailing directions for the Philippine Islands, a table of depths for channels and harbors, and a volume of coast-pilot notes relating to Hawaii.

Inside Route Pilots have been published covering the navigable waters from New York to Key West, Key West to New Orleans, and the coast of New Jersey. Similar volumes are in preparation for inside navigation on other portions of the coasts.

The weekly Notice to Mariners, issued as a joint publication of the Bureau of Lighthouses and the Coast and Geodetic Survey, contains the latest corrections to aids to navigation, reports of recently discovered dangers, a list of new charts and other publications relating to navigation, new editions of charts, and canceled charts.

The General Tide Tables give the times and heights of high and low water for the principal ports of the world. Tide tables for the Atlantic and Pacific coasts of North America are also issued separately.

ANNUAL REPORTS.

Report of Superintendent, showing progress of work from July 1, 1917, to June 30, 1918. 133 p. 2 pl. 4 p. of pl. 31 litho. \$1. [There is also available a limited supply of annual reports for 1906 to 1917, inclusive.]*

GEODESY.

- *Comparison of methods of determining heights by means of leveling, vertical angles, and barometric measures, from observations at Bodega Head and Ross Mountain, Cal.; by George Davidson and Charles A. Schott. Report for 1876, app. 16, p. 338-354, 2 fig.^b 10c.
- *Observations of atmospheric refraction: Contribution II. Determination of several heights by spirit-level, and measures of refraction by zenith-distances, also observations of barometer at Ragged Mountain, Me., in July, Aug., and Sept., 1874; by F. W. Perkins; results deduced and reported by Charles A. Schott. Report for 1876, app. 17, p. 355-367, 1 fig.^b 10c.
- *Atmospheric refraction and adjustment of hypsometric measures: Contribution III. Determination of coefficient of refraction from zenith-distances observed in northern Georgia; by C. O. Boutelle and F. P. Webber, in 1873 and 1874, and adjustment of differences of heights by application of method of least squares; discussion and report by Charles A. Schott. Report for 1876, app. 18, p. 368-387, 2 fig.^a 10c.
- *Observations of transit of Mercury, May 6, 1878, made at Washington, D. C.; by Charles A. Schott. Report for 1878, app. 7, p. 88-91. 5c.
Primary triangulation between Maryland and Georgia base lines; by C. A. Schott. Report for 1878, app. 8, p. 1-31, 1 text fig. 5c.
Description of new meridian instrument; by George Davidson. Report for 1879, app. 7, p. 1-9, 1 pl. 5c.
- *Comparison of local deflections of plumb line in latitude, longitude, and azimuth, at stations of oblique arc along our Atlantic coast, as developed on Bessel's and Clarke's spheroids; by C. A. Schott. Report for 1879, app. 8, p. 110-123, 1 diag. 5c.
Results of longitudes of Survey determined up to present time by means of electric telegraph, together with their preliminary adjustment by method of least squares; by Charles A. Schott. Report for 1880, app. 6, p. 81-92, 1 diag. 5c.
- *Geodesic leveling on Mississippi River; by Andrew Braid. Report for 1880, app. 11, p. 135-144, 3 diag. 5c.
- *Perfect form of contact-slide base apparatus used in Survey; by J. E. Hilgard. Report for 1880, app. 17, p. 341-345, 1 diag. 5c.
- *Method of readily transferring underground terminal marks of a base line; by O. H. Tittmann. Report for 1881, app. 13, p. 357-358. 5c.
- *Description and construction of new compensation primary base apparatus, including determination of length of corresponding 5-meter standard bars; by Charles A. Schott. Report for 1882, app. 7, p. 107-138, 10 fig. 2 diag. 5c.
Conference on gravity determinations, held at Washington, D. C., May, 1882. Report for 1882, app. 22, p. 509-516.
- *Results of observations for atmospheric refraction on line Mount Diablo to Martinez, Cal., in connection with hypsometric measures by spirit level, vertical circle, and barometer, Mar. and Apr., 1880, by George Davidson; reported by Charles A. Schott. Report for 1883, app. 12, p. 289-321, 1 diag. 10c.

* Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a The Superintendent of Documents can supply copies of annual reports for 1851 to 1916, except 1896, at the following prices: 1851, pt. 1, 45c.; 1851, pt. 2, 40c.; 1852, 85c.; 1853, 85c.; 1854, \$1.10; 1855, \$1.15; 1856, \$1.15; 1857, \$1.25; 1858, \$1.10; 1859, \$1.10; 1860, \$1.10; 1861, 90c.; 1862, \$1.15; 1863, \$1; 1864, \$1; 1865, \$1; 1866, 90c.; 1867, 90c.; 1868, 90c.; 1869, 90c.; 1870, 90c.; 1871, 90c.; 1872, 90c.; 1873, 90c.; 1874, \$1; 1875, \$1.20; 1876, \$1.25; 1877, \$1.20; 1878, \$1.20; 1879, \$1.20; 1880, \$1.20; 1881, \$1.20; 1882, \$1.25; 1883, \$1.20; 1884, \$1.20; 1885, \$1.20; 1886, \$1; 1887, \$1.10; 1888, \$1.20; 1889, \$1.75; 1890, \$1.30; 1891, pt. 1, \$1; 1891, pt. 2, 90c.; 1892, pt. 1, 80c.; 1892, pt. 2, 70c.; 1893, pt. 1, \$1.60; 1893, pt. 2, 80c.; 1894, pt. 1, \$1; 1894, pt. 2, \$1.15; 1895, \$1.60; 1897, \$1.70; 1898, \$1.60; 1899, \$1.60; 1900, \$1.90; 1901, \$1.20; 1902, \$1.10; 1903, \$1.35; 1904, \$1.40; 1905, \$1; 1906, \$1.25; 1907, \$1.75; 1908, \$1; 1909, \$1; 1910, \$1.10; 1911, \$1.35; 1912, 25c.; 1913, maps, 85c.; 1913, 75c.; 1914, 40c.; 1915, 55c.; 1916, \$1; 1917, \$1; 1918, \$1.

^b Appendices 16-19 of Report for 1876 are bound under one cover. Appendix 19 is listed under the heading "Miscellaneous," p. 23.

- *Observations of transit of Venus of Dec. 6, 1882, at Washington, D. C., at Tepusquet station, Cal., and at Lehman's ranch, Nev.; by C. A. Schott, B. A. Colonna, William Eimbeck, and J. S. Lawson. Report for 1883, app. 16, p. 371-378. 5c.
- Field catalogue of time and circumpolar stars for 1885; by George Davidson. Report for 1883, app. 18, p. 1-91. 10c.
- *Determinations of gravity at Allegheny, Ebensburg, and York, Pa., 1879 and 1880; by Charles S. Peirce. Report for 1883, app. 19, p. 473-487. 10c.
- *Run of micrometer; by George Davidson. Report for 1884, app. 8, p. 377-385. 5c.
- Connection at Lake Ontario of primary triangulation of Coast and Geodetic Survey with that of Lake Survey; observations by Charles O. Boutelle; discussion by Charles A. Schott. Report for 1884, app. 9, p. 387-390, 1 map.
- *Results of trigonometrical determination of heights of stations forming Davidson quadrilaterals, Cal.; observations by George Davidson, 1876-1882; discussion by Charles A. Schott, 1884. Report for 1884, app. 10, p. 391-405, 2 fig. 5c.
- Longitudes deduced in Survey from determinations by means of electric telegraph, 1846-1885—Second adjustment; by Charles A. Schott. Report for 1884, app. 11, p. 407-430, 1 diag. 5c.
- *Determinations of gravity with Kater pendulums at Auckland, New Zealand; Sydney, New South Wales; Singapore, British India; Tokyo, Japan; San Francisco, Cal.; and Washington, D. C.; by Edwin Smith. Report for 1884, app. 14, p. 439-473. 10c.
- *Use of nobby for measuring amplitude of swaying in pendulum support; by C. S. Peirce. Report for 1884, app. 15, p. 475-482. 5c.
- *Note on effect of flexure of pendulum upon its period of oscillation; by C. S. Peirce. Report for 1884, app. 16, p. 483-485. 5c.
- Geographical positions of trigonometrical points in Massachusetts and Rhode Island determined by Survey, 1835-1885, and including those determined by Borden survey, 1832-1838; by Charles A. Schott. Report for 1885, app. 8, p. 285-439, 2 maps. 10c.
- *Note on device for abbreviating time reductions; by C. S. Peirce. Report for 1885, app. 15, p. 503-508. 5c.
- *Influence of nobby on period of pendulum; by C. S. Peirce. Report for 1885, app. 16, p. 509-510. 5c.
- *Effect of unequal temperature upon reversible pendulum; by C. S. Peirce. Report for 1885, app. 17, p. 511-512. 5c.
- *Fluctuations in level of Lake Champlain and average height of its surface above sea—Preliminary report by Charles A. Schott. Report for 1887, app. 7, p. 165-172, 1 diag. 5c.
- *Heights from spirit levelings of precision between Mobile, Ala., and Carrollton (New Orleans), La., by J. B. Weir, 1885-86; by Charles A. Schott. Report for 1887, app. 9, p. 185-205. 5c.
- *Results of spirit leveling of precision about New York Bay and vicinity, 1886 and 1887; observations by John B. Weir and J. E. McGrath; discussion by Charles A. Schott. Report for 1887, app. 14, p. 275-300, 1 map. 5c.
- Bibliography of geodesy; by J. Howard Gore. Report for 1887, app. 16, p. 313-512.
- *Heights from spirit leveling of precision between Mobile, Ala., and Okoloma, Miss.; observations by J. B. Weir and J. E. McGrath, 1884, 1886, and 1887; report by Charles A. Schott. Report for 1888, app. 10, p. 409-426. 5c.
- *Heights from spirit leveling of precision between New Orleans, La., and Wilkinson's Landing, Miss., opposite Arkansas City, Ark.; report on reduction of observations and results by Charles A. Schott. Report for 1888, app. 11, p. 427-453. 5c.
- *Heights from spirit leveling of precision between Arkansas City (on Mississippi River) and Little Rock, Ark.; observations by J. E. McGrath, 1887-88; report by Charles A. Schott. Report for 1888, app. 12, p. 455-464. 5c.
- *Differential method of computing apparent places of stars for determinations of latitude; by E. D. Preston. Report for 1888, app. 13, p. 465-470. 5c.
- Determinations of latitude and gravity for Hawaiian Government; by E. D. Preston. Report for 1888, app. 14, p. 471-563, 12 pl., 5 maps, 5 diag. 25c.
- Measurement of Los Angeles base line. Los Angeles and Orange counties, Cal.; by George Davidson. Report for 1889, app. 10, p. 217-231, 1 map, 3 diag. 5c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

*Appendixes 16 and 17 to Report for 1886 are bound together; price, 5 cents.

- *Results of spirit leveling between tidewater at Annapolis, Md., and Capitol bench mark at Washington, D. C., from observations in 1875 by F. W. Perkins; report by C. A. Schott. Report for 1889, app. 15, p. 461-466. 5c.
- *Resulting length and probable uncertainty of five principal base lines, measured with compensation base apparatus, Bache-Würdemann, of Survey, 1847-1855; by Charles A. Schott. Report for 1889, app. 17, p. 479-491. 5c.
- *Report of George Davidson, appointed by President as delegate to 9th conference of International Geodetic Association held at Paris, Oct., 1889. Report for 1889, app. 18, p. 493-503, 1 fig. 5c.
- Determinations of gravity and magnetic elements in connection with United States scientific expedition to West Coast of Africa, 1889-90; by E. D. Preston. Report for 1890, app. 12, p. 625-684, 10 pl. 16 fig. 1 map. [Includes observations on some islands in the North and South Atlantic Ocean.] 15c.
- International Geodetic Association, 9th conference, Paris, Oct. 3-12, 1889—Address of George Davidson, delegate to association on part of United States. Report for 1890, app. 17, p. 721-733.
- Geographical explorations. Report for 1890, app. 19.
- Report of expedition to Muir Glacier, Alaska, with determinations of latitude and magnetic elements at Camp Muir, Glacier Bay; by Harry Fielding Reid. Report for 1891, pt. 2, app. 14, p. 487-501, 1 map.
- Variation of latitude at Rockville, Md., as determined from observations, 1891 and 1892, in cooperation with International Geodetic Association; by C. A. Schott. Report for 1892, pt. 2, app. 1, p. 1-51, 2 fig. 2 pl. 2 diag.
- Variation of latitude at Waikiki, near Honolulu, Hawaii, as determined from observations, 1891 and 1892, in cooperation with the International Geodetic Association; by E. D. Preston. Report for 1892, pt. 2, app. 2, p. 53-159, 3 pl. 1 fig. 2 maps 9 diag.
- Measure of irregularity in one turn of micrometer screw, and relative value of each turn; by George Davidson. Report for 1892, pt. 2, app. 9, p. 505-513, 1 diag. 5c.
- *Resulting heights from geodetic leveling along transcontinental line of levels between St. Louis and Jefferson City, Mo., 1882 and 1888; by Andrew Braid, Gershorn Bradford, and Isaac Winston; discussion and report by Charles A. Schott. Report for 1893, pt. 2, app. 2, p. 19-36, 1 fig. 1 diag. 5c.
- Photography as applied to obtain instantaneous record of lunar distances for determinations of longitude; by C. Runge. [Translated by J. A. Flemer.] Report for 1893, pt. 2, app. 4, p. 117-124. 5c.
- *Measurement of base line with steel tapes and with steel and brass wires; by Edw. Jäderin. [Translated by J. H. Gore.] Report for 1893, pt. 2, app. 5, p. 125-164, 1 pl. 1 diag. 5c.
- Proceedings of Geodetic Conference, held at Washington, D. C., Jan. 9-Feb. 28, 1894. Report for 1893, pt. 2, app. 9, p. 223-424, 7 pl. 4 fig. 1 map, 1 diag. 15c.
- Determinations of latitude, gravity, and magnetic elements at stations in Hawaiian Islands, including result for mean density of earth, 1891-92; by E. D. Preston. Report for 1893, pt. 2, app. 12, p. 509-639, 8 pl. 12 fig. 2 maps, 6 diag.
- *Results of observations for variations of latitude at Waikiki, Hawaii, in cooperation with work of International Geodetic Association; by E. D. Preston. Bull. 27, p. 6-20, 2 diag. 1893. 5c.
- *Constant of aberration as determined from discussion of results for latitude at Waikiki, Hawaii; by E. D. Preston. Bull. 28, p. 21-34, 1 diag. 1893. 5c.
- Relative determinations of gravity with half-second pendulums, and other pendulum investigations; by G. R. Putnam. Also report on geologic examination of some Survey gravity stations; by G. K. Gilbert. Report for 1894, pt. 2, app. 1, p. 7-55, 6 fig. 1 diag. 15c.
- Telegraphic determination of the force of gravity at Baltimore, Md., from simultaneous pendulum observations at Washington and Baltimore; by E. D. Preston. Report for 1894, pt. 2, app. 2, p. 57-70, 1 fig. 10c.
- *Notes on some instruments recently made in instrument division of Survey; by Edwin Smith. Report for 1894, pt. 2, app. 8, p. 263-275, 4 pl. 15c.
- Geographic positions of trigonometric points in Massachusetts, determined by Survey, 1843-1894, and including those determined by survey made by Borden, 1832-1838. (2d enl. and rev. ed.) Report for 1894, pt. 2, app. 10, p. 349-615, 3 maps. 35c.

- Abstract of resulting latitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1896; by C. A. Schott.** Report for 1895, app. 2, p. 321-332.
- Abstract of resulting longitudes of some prominent stations in Alaska and adjacent parts, as astronomically determined, 1889-1896; by C. A. Schott.** Report for 1895, app. 3, p. 333-344.
- *Graphic method of reducing stars from mean to apparent places; by E. D. Preston.** Report for 1895, app. 7, p. 371-380, 3 diag. 10c.
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- *Constant of aberration as determined from observations of latitude at San Francisco, Cal.; discussion by E. D. Preston; observations by George Davidson.** Bull. 32, p. 109-120. 1895. 5c.
- *Resulting heights from spirit leveling between Old Point Comfort and Richmond, Va., from observations made by J. B. Weir, Sept.-Nov., 1884, and by I. Winston, Dec., 1891-Feb., 1892; by C. A. Schott.** Report for 1896, app. 2, p. 237-246, 1 map. 5c.
- *Resulting heights from spirit leveling between Richmond, Va., and Washington, D. C., from observations by J. B. Weir, Sept. and Oct., 1883, and Sept. and Oct., 1884, with releveling by J. B. Weir between Richmond, and Fredericksburg, Va., May and June, 1886, and verification leveling between the two cities by I. Winston, Apr.-June, 1895; by Charles A. Schott.** Report for 1896, app. 3, p. 247-260, 1 map. 5c.
- *Resulting heights from spirit leveling between Washington, D. C., and Hagerstown, Md., from observations by J. B. Weir, July-Sept., 1883; report by Charles A. Schott.** Report for 1896, app. 4, p. 261-264, 1 map. 5c.
- *Resulting heights from spirit leveling between Jefferson City, Mo., and Holliday, Kans., from observations by I. Winston and F. A. Young, Apr. 21-Oct. 13, 1891; report by Charles A. Schott.** Report for 1896, app. 5, p. 265-284, 1 fig. 1 map. 5c.
- Field method of reducing portable transit time observations; by G. R. Putnam.** Report for 1896, app. 9, p. 347-352. 5c.
- Determination of constant of aberration from latitude observations with zenith telescope at Honolulu, Hawaii, and San Francisco, Cal.; by E. D. Preston.** Report for 1896, app. 10, p. 353-371, 2 diag.
- Telegraphic longitude net of United States and its connection with that of Europe, 1866-1896; by Charles A. Schott.** Report for 1897, app. 2, p. 197-261, 1 map. 10c.
- *Resulting longitudes of Kodiak, Unalaska, and Unga, Alaska, as determined chronometrically from Sitka in 1896, by party under charge of Fremont Morse; by Charles A. Schott.** Report for 1897, app. 3, p. 263-268. 5c.
- *Resulting heights from spirit leveling between Holliday and Salina, Kans., from observations by I. Winston, July 11-Oct. 28, 1895; by Charles A. Schott.** Report for 1897, app. 4, p. 269-283, 1 fig. 5c.
- *Measurement of Salt Lake base line in Utah; by William Eimbeck.** Report for 1897, app. 12, p. 753-774, 1 fig. 6 pl. 1 map, 2 diag. 15c.
- *Resulting heights from spirit leveling between Ellias, Kans., and Hugo, Colo., from observations by I. Winston, June 11-Nov. 17, 1897; report by Charles A. Schott.** Report for 1898, app. 2, p. 195-214, 2 fig. 5c.
- *Resulting heights from spirit leveling between Hugo and Colorado Springs, Colo., from observations by I. Winston, Apr. 20-July 8, 1898; report by Charles A. Schott.** Report for 1898, app. 3, p. 215-228, 1 fig. 5c.
- Physical observations made in connection with the Pribilof Islands survey of 1897; by G. R. Putnam.** Report for 1898, app. 5, p. 233-241, 1 fig. 1 map.
- *International Geodetic Association for measurement of the earth; by Erasmus D. Preston, delegate on part of United States at 12th general conference.** Report for 1899, app. 3, p. 241-269, 1 map. 10c.
- *Determinations of gravity at Polytechnic Institute, Worcester, Mass., and Columbia University, New York City, with pendulum apparatus B; by Edwin Smith.** Report for 1899, app. 4, p. 271-282, 2 fig. 5c.

- *Resulting elevations from spirit leveling between Denver, Colo., and Rock Creek, Wyo., from observations by Isaac Winston, May 12–Oct. 21, 1899; by Isaac Winston. Report for 1899, app. 5, p. 283–298, 1 fig. 5c.
- *Resulting elevations from spirit leveling between Abilene, Kans., and Norfolk, Nebr., from observations by A. L. Baldwin and B. E. Tilton, May 8–Oct. 17, 1899; by B. E. Tilton. Report for 1899, app. 6, p. 299–320, 1 fig. 5c.
- *Resulting elevations from spirit leveling between Gibraltar, Mich., and Cincinnati, Ohio, from observations by O. W. Ferguson, June 3–Nov. 28, 1899; report by O. W. Ferguson. Report for 1899, app. 7, p. 321–345, 1 fig. 5c.
- Precise leveling in United States; by John F. Hayford. Report for 1899, app. 8, p. 347–886, 8 pl. 3 fig. 2 maps. 40c.
- International latitude service at Gaithersburg, Md., and Ukiah, Cal., under auspices of International Geodetic Association; by Edwin Smith and F. Schlesinger. Report for 1900, app. 5, p. 495–520, 2 pl. 1 fig. 2 maps, 2 diag. 10c.
- Transcontinental triangulation and American arc of parallel; by Charles A. Schott. Special publication 4. 871 p. 17 pl. 2 fig. 4 maps, 33 diag. 1900. \$1.60.
- Measurement of nine base lines along 98th meridian; by A. L. Baldwin, with preface by John F. Hayford. Report for 1901, app. 3, p. 229–302.
- Triangulation northward along 98th meridian in Kansas and Nebraska; by John F. Hayford. Report for 1901, app. 6, p. 357–423.
- Triangulation in Kansas; by J. F. Hayford. Report for 1902, app. 3, p. 211–293, 5 maps. 15c.
- Bibliography of geodesy; by J. H. Gore. 2d ed. Report for 1902, app. 8, p. 427–787. 25c.
- *Eastern oblique arc of United States and osculating spheroid; by Charles A. Schott. Special publication 7. 394 p. 12 pl. 2 maps, 25 diag. 1902. 90c.
- Precise leveling in United States, 1900–1903, with readjustment of level net and resulting elevations; by J. F. Hayford. Report for 1903, app. 3, p. 189–810, 2 views, 14 maps and sketches, 6 diag. 40c.
- Same, reprint with changes of p. 580–809, descriptions of bench marks. 35c.
- Triangulation southward along the 98th meridian in 1902; by J. F. Hayford. Report for 1903, app. 4, p. 811–830, 5 views, 5 maps and sketches, 5 diag.
- Geodetic operations in United States, 1900–1903—Report to the 14th general conference of International Geodetic Association; by O. H. Tittmann. 28 p. 1 illus. 10c.
- Telegraphic longitudes—Pacific arcs from San Francisco to Manila, 1903–4, completing circuit of earth; by Edwin Smith. Report for 1904, app. 4, p. 259–311, 13 illus. 10c.
- *Precise leveling from Red Desert, Wyo., to Owyhee, Idaho, 1903; by J. F. Hayford. Report for 1904, app. 6, p. 403–430. 10c.
- *Precise leveling from Holland to New Braunfels, Tex., 1903; by J. F. Hayford. Report for 1904, app. 7, p. 433–450. 5c.
- Test of transit micrometer; by John F. Hayford. Report for 1904, app. 8, p. 453–487, 2 illus. 15c.
- Triangulation in California: pt. 1; by A. L. Baldwin. Report for 1904, app. 9, p. 491–764, 21 illus. 35c.
- *Precise leveling from Red Desert, Wyo., to Seattle, Wash., 1903–4; by J. F. Hayford. Report for 1905, app. 4, p. 193–241. 10c.
- Triangulation along 98th meridian, Lampasas to Seguin, Tex.; by J. F. Hayford. Report for 1905, app. 5, p. 243–282, 2 diag. 15c.
- Precise leveling in United States, 1903–1907, with readjustment of level net and resulting elevations; by J. F. Hayford and L. Pike. 280 p. 1 map. 45c.
- Figure of earth and isostasy from measurements in United States; by J. F. Hayford. 178 p. 6 maps, 11 diag. 1909. \$1.35.
- Supplementary investigation of figure of earth and isostasy, 1909; by J. F. Hayford. 80 p. 5 maps, 1 diag. 85c.
- *Geodetic operations in United States, 1906–1909—Report of 16th general conference of International Geodetic Association; by O. H. Tittmann and J. F. Hayford. 11 p. 5c.

- Primary base lines at Stanton, Tex., and Deming, N. Mex.; by William Bowie. Report for 1910, app. 4, p. 143-171, 5 text fig. 5c.
- Triangulation in California: pt. 2; by C. R. Duvall and A. L. Baldwin. Report for 1910, app. 5, p. 173-429, 40 diag. 60c.
- Measurement of flexure of pendulum supports with interferometer; by W. H. Burger. Report for 1910, app. 6, p. 431-449, 6 text fig. 5c.
- Effect of topography and isostatic compensation upon intensity of gravity; by John F. Hayford and William Bowie. Special publication 10. 132 p. 11 text fig. 9 charts. 1912. 35c.
- *Same, second paper; by William Bowie. Special publication 12. 28 p. 5 charts. 1912. 40c.
- Triangulation along 98th meridian, Nebraska to Canada, and connection with Great Lakes; by William Bowie. Report for 1911, app. 4, p. 159-342, 2 pl. 10 p. of pl. 40c.
- Triangulation along 98th meridian, Seguin to Point Isabel, Tex.; by A. L. Baldwin. Report for 1911, app. 5, p. 345-414, 8 text fig. 20c.
- Triangulation along east coast of Florida and on Florida keys; by Hugh C. Mitchell. Report for 1911, app. 6, p. 417-579, 23 text fig. 20c.
- *Texas-California arc of primary triangulation; by William Bowie. Special publication 11. 141 p. 8 pl. 10 fig. 1912. 20c.
- Geodetic operations in United States, 1909-1912—Report to 17th general conference of International Geodetic Association; by O. H. Tittmann. 18 p. 3 pl.
- The California-Washington arc of primary triangulation; by A. L. Baldwin. Special publication 13. 78 p. 7 maps. 1913. 15c.
- Determination of time, longitude, latitude, and azimuth; by William Bowie. Special publication 14. 177 p. 26 pl. 1 fig. 1913. 35c.
- Triangulation along west coast of Florida; by Clarence H. Swick. Special publication 16. 147 p. 1 pl. 28 maps. 1913. 20c.
- Triangulation on coast of Texas, from Sabine Pass to Corpus Christi Bay; by Charles A. Mourhess. Special publication 17. 89 p. 1 pl. 18 maps. 1913. 20c.
- Fourth general adjustment of precise level net in the United States and resulting standard elevations; by William Bowie and H. G. Avers. Special publication 18. 328 p. 4 pl. 1 map. 1914. 40c.
- Primary triangulation on 104th meridian, and on 39th parallel in Colorado, Utah, and Nevada; by William Bowie. Special publication 19. 163 p. 10 pl. 11 maps. 1914. 25c.
- Precise leveling from Brigham, Utah, to San Francisco, Cal.; by William Bowie. Special publication 22. 67 p. 5 text fig. 1914. 15c.
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- Latitude observations with photographic zenith tube at Gaithersburg, Md.; by Frank E. Ross, Ph. D. Special publication 27; serial 7. 127 p. 17 pl. 1 text fig. 1915. 25c.
- Application of theory of least squares to adjustment of triangulation; by Oscar S. Adams. Special publication 28; serial 9. 220 p. 9 text fig. 1915. 25c.
- Triangulation in West Virginia, Ohio, Kentucky, Indiana, Illinois, and Missouri; by A. L. Baldwin. Special publication 30; serial 14. 67 p. 2 maps, 10 diag. 1915. 20c.
- Triangulation along Columbia River and coasts of Oregon and northern California; by Charles A. Mourhess. Special publication 31; serial 15. 149 p. 7 pl. 2 maps, 35 diag. 1915. 40c.
- Determination of difference in longitude between each two of the stations Washington, Cambridge, and Far Rockaway; by Fremont Morse and O. B. French. Special publication 35; serial 29. 40 p. 3 pl. 5 text fig. 1916. 10c.
- Precise leveling from Reno to Las Vegas, Nev., and from Tonopah Junction, Nev., to Laws, Cal.; by H. G. Avers and G. D. Cowie. Special publication 39; serial 49. 49 p. 5 text fig. 1916. 10c.
- Investigations of gravity and isostasy; by William Bowie. Special publication 40; serial 50. 196 p. 1 pl. 8 p. of pl. 9 charts in pocket. 60c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

- Triangulation in Georgia; by Clarence H. Swick. Special publication 43; serial 65. 59 p. 9 pasters. 10c.
- Description of triangulation stations in Georgia; by Clarence H. Swick. Special publication 45; serial 73. 43 p. 1 pl. 10c.
- Triangulation in Maine; by Walter F. Reynolds. Special publication 46; serial 74. 286 p. 1 pl. 21 diag. 40c.

HYDROGRAPHY.

- *Abstract of paper read before National Academy of Sciences, Apr. 16, 1869, on earthquake wave of Aug. 14, 1868; by J. E. Hilgard. Report for 1869, app. 13, p. 233-234. 5c.
- *Description of optical densimeter for ocean water; by J. E. Hilgard. Report for 1877, app. 10, p. 108-113, 1 fig. 5c.
- *Physical hydrography of Gulf of Maine; by Henry Mitchell. Report for 1879, app. 10, p. 175-190, 1 fig. 2 diag. 5c.
- *Comparison of surveys of Delaware River in front of Philadelphia, 1843 and 1878; by H. L. Marindin. Report for 1880, app. 9, p. 110-125, 6 diag. 5c.
- *Comparison of surveys of Mississippi River in vicinity of Cubitts Gap; by H. L. Marindin. Report for 1880, app. 10, p. 126-134, 1 diag. 5c.
- *Comparison of survey of Delaware River of 1819, between Pettys and Tinicum Islands, with more recent surveys; by Henry L. Marindin. Report for 1882, app. 15, p. 427-432, 3 diag. 5c.
- *Discussion of tides of Pacific coast of United States; by William Ferrel. Report for 1882, app. 17, p. 437-450, 3 diag. 5c.
- Report on Siemens electrical deep-sea thermometer; by J. R. Bartlett. (Accompanied by description of apparatus, by Werner Suess.) Report for 1882, app. 18, p. 451-457, 3 fig. 2 diag.
- *Estuary of Delaware River; by Henry Mitchell. Report for 1883, app. 8, p. 239-245, 1 fig. 1 diag. [See also Report for 1887, app. 13.] 5c.
- *Physical hydrography of Delaware River and Bay—Comparison of recent with former surveys; by H. L. Marindin. Report for 1884, app. 12, p. 431-434, 2 diag. 5c.
- *Comparison of transverse sections in Delaware River, between old navy yard and east end of Pettys Island, for 1819, 1843, and 1878; by Henry L. Marindin. Report for 1885, app. 12, p. 487-488. 10c.
- *Harmonic analysis of tides at Governors Island, New York Harbor; by William Ferrel. Report for 1885, app. 13, p. 489-493, 1 map. 5c.
- *Deep-sea current work in Gulf Stream; by J. E. Pillsbury. Report for 1885, app. 14, p. 495-501, 1 pl. 2 maps, 8 diag. 15c.
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- *Delta of Delaware River; by Henry Mitchell. Report for 1886, app. 10, p. 267-279, 1 fig. 5c.
- *Gulf Stream explorations—Observations of currents, 1886; by J. E. Pillsbury. Report for 1886, app. 11, p. 281-290, 6 diag., presenting curves of observations of currents in Gulf Stream, 1885-86. 10c.
- *Methods and results, circulation of sea through New York Harbor; by Henry Mitchell. Report for 1886, app. 13, p. 409-432, 3 fig. 3 diag. 10c.
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- *Gulf Stream explorations—Observations of currents, 1887; by J. E. Pillsbury. Report for 1887, app. 8, p. 173-184, 2 maps, 7 diag. 25c.
- *Addendum to report on estuary of the Delaware River; by Henry Mitchell. Report for 1887, app. 13, p. 269-273. [Supplementary to report for 1883, app. 8, p. 239-245.] 5c.
- *Results of physical surveys of New York Harbor; by Henry Mitchell. Report for 1887, app. 15, p. 301-311, 1 fig. 6 diag. 10c.

- *Tide levels and flow of currents in New York Bay and Harbor; by Henry L. Marindin. Report for 1888, app. 9, p. 405-408, 12 maps. 10c.
- *Encroachment of the sea upon coast of Cape Cod, Mass., as shown by comparative surveys; by Henry L. Marindin. Report for 1889, app. 12, p. 403-407, 1 map. 5c.
- *Cross-sections of shore of Cape Cod between Chatham and Highland Lighthouse; by Henry L. Marindin. Report for 1889, app. 13, p. 409-457, 1 map. 10c.
- *Recent changes in south inlet into Edgartown Harbor, Marthas Vineyard; by Henry L. Whiting. Report for 1889, app. 14, p. 459-460, 1 map. 5c.
- Gulf Stream explorations—Observations of currents, 1888 and 1889; by J. E. Pillsbury. Report for 1889, app. 16, p. 467-477, 8 maps, 12 diag. 50c.
- *Currents of New York Bay and Harbor; compiled by B. A. Colonna from notes of physical survey by H. L. Marindin. 2d ed. Bull. 8, p. 41-43. 1889. 5c.
- *Sounds and estuaries of North Carolina with reference to oyster culture; by Francis Winslow. Bull. 10, p. 51-136, 2 maps, 1 diag. 1889. 20c.
- *Syphon tide-gauge for open seacoast; by Henry L. Marindin. Bull. 12, p. 143-146, 1 diag. 1889. 10c.
- *Use of observations of currents for prediction purposes; by John F. Hayford. Report for 1890, app. 14, p. 691-703. 5c.
- *Comparison of predicted with observed tides and heights of high and low water at Sandy Hook, N. J., 1889; by Alex. S. Christie and John F. Hayford. Report for 1890, app. 15, p. 705-714, 2 diag. 10c.
- *Reduction of hydrometer observations of salt-water densities. Submitted for publication, Feb. 18, 1890, by O. H. Tittmann; revised for republication, Feb. 1, 1892. 2d ed. Report for 1891, pt. 2, app. 6, p. 275-277. 5c.
- *Changes in shore lines and anchorage areas of Cape Cod (or Provincetown) Harbor as shown by comparison of surveys made between 1835, 1867, and 1890; by Henry L. Marindin. Report for 1891, pt. 2, app. 8, p. 283-288, 2 maps. 5c.
- *Cross-sections of shore of Cape Cod, Mass., between Cape Cod and Long Point Lighthouses; by Henry L. Marindin. Report for 1891, pt. 2, app. 9, p. 289-341. 5c.
- *Observations of currents with direction-current meter in Straits of Florida and in Gulf of Mexico, 1891; by E. E. Haskell. Report for 1891, pt. 2, app. 10, p. 343-364, 1 pl. 1 map, 7 diag. 10c.
- *Sounds and estuaries of Georgia with reference to oyster culture; by J. C. Drake. Bull. 19, p. 179-209, 7 maps. 1891. 30c.
- *Tides and currents in harbor of Edgartown and in Katama Bay, Marthas Vineyard; by Henry L. Marindin. Report for 1892, pt. 2, app. 5, p. 225-241, 1 map, 3 diag. 5c.
- *Changes in ocean shore lines of Nantucket Island, Mass., from comparison of surveys made in 1846-1887 and 1891; by Henry L. Marindin. Report for 1892, pt. 2, app. 6, p. 243-252, 1 map, 3 diag. 5c.
- *Changes in depths on bar at entrance to Nantucket inner harbor, Mass., 1888-1893; by H. L. Marindin. Report for 1895, app. 5, p. 347-354, 4 diag. 10c.
- Notes on specific gravity of waters of Gulf of Mexico and Gulf Stream; by A. Lindenkohl. Report for 1895, app. 6, p. 355-369, 8 fig. 2 maps. 10c.
- Manual of tides: pt. 4b, Cotidal lines for world; by R. A. Harris. Report for 1904, app. 5, p. 315-400, 41 illus. 30c.
- Manual of tides: pt. 5, Currents, shallow-water tides, meteorological tides, and miscellaneous matters; by R. A. Harris. Report for 1907, app. 6, p. 231-546, 22 diag. 7 charts. 60c.
- *Long-wire drag; by N. H. Heck. Rev. ed. Special publication 21. 31 p. 7 pl. 12 text fig. 1914. 20c.
- Survey of oyster bars, Anne Arundel County, Md.—Description of boundaries and landmarks, and report of work of Survey in cooperation with Maryland Shell Fish Commission; by C. C. Yates. 106 p. 1 map. 1907. 25c.
- Survey of oyster bars—Description of boundaries and landmarks, and report of work of Survey in cooperation with U. S. Bureau of Fisheries and Maryland Shell Fish Commission; by C. C. Yates:
- Somerset County, Md. 118 p. 1 map. 1908. 20c.
- *Wicomico County, Md. 54 p. 1 map. 1909. 15c.

Survey of oyster bars, etc.—Continued.

- *Worcester County, Md. 67 p. 1 map. 1909. 15c.
- *Calvert County, Md. 94 p. 1 map. 1910. 15c.
- *Charles County, Md. 62 p. 1 map. 1911. 15c.
- *St. Marys County, Md. 203 p. 1 map. 1911. 30c.
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- Kent County, Md. 130 p. 1 map. 1912. 20c.
- Queen Anne County, Md. 176 p. 1 map. 1912. 35c.
- Dorchester County, Md. 180 p. 1 map. 1912. 30c.
- Talbot County, Md. 250 p. 1 map. 1912. 30c.

Summary of survey of oyster bars of Maryland, 1906–1912; by C. C. Yates. 81 p. 2 maps. 1913. 25c.

*Table of depths for channels and harbors, coasts of United States, Porto Rico, Hawaiian Islands, and Philippine Islands. 175 p. 1913. 20c.

Arctic tides; by R. A. Harria. 103 p. 3 charts. 1911. 20c.

Wire-drag work on Atlantic coast; by N. H. Heck and J. H. Hawley. Special publication 29; serial 13. 24 p. 4 pl. 4 text fig. 1915. 10c.

Wire-drag work in Alaska; by L. O. Colbert and John A. Daniela. Special publication 34; serial 24. 31 p. 1 chart, 7 pl. 6 text fig. 1916. 15c.

Construction and operation of wire drag. Special publication 56; serial 107. 40 p. In press.

Coast pilots.

U. S. coast pilot, Atlantic coast: sec. A., St. Croix River to Cape Cod. Aug. 23, 1918. Serial 99. 305 p. 1 index map. 50c.^a

Same, sec. B., Cape Cod to Sandy Hook. 1918. Serial 91. 326 p. 2 index maps. 50c.^a

Same, sec. C, Sandy Hook to Cape Henry, including Delaware and Chesapeake Bays. 1916. Serial 32. 284 p. 1 index map. 50c.^a

Same, sec. D, Cape Henry to Key West. 1913. 231 p. 1 index map. 50c.^a

Same, supplement to sec. D. May 24, 1918. Serial 96. 25 l.

Same, sec. E, Gulf of Mexico from Key West to Rio Grande. 1916. Serial 45. 169 p. 1 index map. 50c.^a

U. S. coast pilot, Pacific coast: California, Oregon, and Washington. 3d ed. 1917. Serial 69. 285 p. 2 index maps. 50c.^a

Same, Alaska: pt. 1, Dixon Entrance to Yakutat Bay. 6th ed. 1917. Serial 66, 257 p. 3 index maps. 50c.^a

Same, pt. 2, Yakutat Bay to Arctic Ocean. 1st ed. 1916. Serial 34. 303 p. 50c.^a

Same, West Indies: Porto Rico. 1906. 116 p. 1 index map, 1 chart, 14 illus. 50c.^a

Coast pilot notes, Hawaiian Islands. Feb. 21, 1912. 57 p. 10c.

Inland pilots.

Inside route pilot, New York to Key West. 3d ed. Sept. 15, 1916. Serial 52. 94 p. 8 charts in pocket. 20c.^a

Same, Key West to New Orleans. 1914. 96 p. 6 charts in pocket. 20c.^a

Same, coast of New Jersey. 1915. Serial 4. 32 p. 3 charts. 20c.^a

Tide tables.

General tide tables, 1919. Serial 95. 497 p. 6 pasters, 1 text fig. 50c.^a

Atlantic coast tide tables, for eastern North America, 1919. Serial 80. (Reprinted from General tide tables.) 204 p. 6 pasters. 10c.^a

Same, 1920. Serial 103. 204 p. 6 pasters. 10c.^a In press.

Pacific coast tide tables, for western North America, eastern Asia, and many island groups, 1919. Serial 83. (Reprinted from General tide tables.) 188 p. 10c.^a

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^a Available only from Coast and Geodetic Survey or its agencies and at price stated.

Chart catalogues.

Catalogue of charts, coast pilots, and tide tables, 1918. Serial 70. 230 p. 88 text fig. 25c.

Same, supplement. Jan. 4, 1919. Serial 106. 5 p.

Catalogue of charts, sailing directions, and tide tables of Philippine Islands, 1918. 52 p. 23 text fig.

Sailing directions for the Philippine Islands.

Philippine Islands—Sailing directions: sec. 1, North and west coasts of Luzon and adjacent islands. 4th ed. 1912. 132 p.

Same, sec. 2, Southwest and south coasts of Luzon and adjacent islands. 4th ed. 1910. 102 p.

Same, sec. 3, Coast of Panay, Negros, Cebu, and adjacent islands. 4th ed. 1911. 180 p.

Philippine Islands—Sailing directions: Sec. 4, Coasts of Samar and Leyte, and the east coast of Luzon. 4th ed. 1912. 201 p.

Same, sec. 5, Coasts of Mindanao and adjacent islands. 4th ed. 1913. 201 p.

Same, sec. 6 and 7, Mindoro Strait, Palawan Island, and Sulu Sea and Archipelago. 3d ed. 1911. 251 p.

Notice to mariners.

Philippine Islands—Notice to mariners. Issued monthly.

TOPOGRAPHY.

*Proceedings of Topographical Conference, Washington, D. C., Jan. 18–Mar. 7, 1892. Report for 1891, pt. 2, app. 16, p. 565–746, 2 pl. 25 fig. 1 map, 5 diag. 25c.

*Subdivision 1. List of original topographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834–Dec. 31, 1895; nos. 1–2209. Subdivision 2. List of original hydrographic sheets, geographically arranged, registered in archives of Survey, Jan., 1834–Dec. 31, 1895; nos. 1–2222. Report for 1895, app. 11, p. 399–516. 40c.

Plane table manual; by D. B. Wainwright. Report for 1905, app. 7 (reprint with corrections, 1916), p. 289–342, 7 litho. 9 pl. 20 p. of pl. 1 text fig. 50c.

TERRESTRIAL MAGNETISM.

On chart of magnetic declination in United States, constructed by J. E. Hilgard. Report for 1876, app. 21, p. 400–401, 1 map.

Collection of results for declination, dip, and intensity, from observations made by Survey, 1833–1882, July; by Charles A. Schott. Report for 1881, app. 9, p. 159–224.

Geographical distribution and secular variation of magnetic dip and intensity in United States; by Charles A. Schott. Report for 1885, app. 6, p. 129–274, 3 maps, 3 diag.

*Secular variation in position of agonic line of North Atlantic and of America, between epochs 1500 and 1900 A. D.; by Charles A. Schott. Bull. 6, p. 29–43, 3 maps. 1888. 25c.

*Historical review of work of Survey in connection with terrestrial magnetism; by Charles A. Schott. Bull. 7, p. 35–40, 4 maps. 1888. 30c.

Secular variation of magnetic declination in United States and at some foreign stations; by Charles A. Schott. Report for 1888, app. 7, p. 177–312.

Distribution of magnetic declination in United States for epoch 1890; by Charles A. Schott. 2d ed. Report for 1889, app. 11, p. 233–402, 3 maps, 1 diag.

*Magnetic observations made on Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725–1730. Bull. 20, p. 211–214. 1891. 5c.

Results of observations made at Survey magnetic observatory at Los Angeles, Cal., in charge successively of Marcus Baker, Carlisle Terry, jr., and Richard E. Halter, 1882–1889: pt. 1, Results of absolute measures of direction and intensity of earth's magnetic force; discussion and report by Charles A. Schott. Report for 1890, app. 8, p. 199–241. 10c.

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- Secular variation and annual change of magnetic force at stations occupied by E. D. Preston**, in connection with United States eclipse expedition to West Coast of Africa, 1889-90, in charge of D. P. Todd; discussion and report by C. A. Schott. Submitted for publication Mar. 16, 1891. Report for 1891, pt. 2, app. 3, p. 21-39. 5c.
- Magnetic observations made during Bering's first voyage to coasts of Kamchatka and eastern Asia, 1725-1730**; discussion by C. A. Schott. Submitted for publication as a bulletin Dec. 12, 1890, and first published Feb. 26, 1891. Report for 1891, pt. 2, app. 5, p. 269-273.
- Results of magnetic observations at stations in Alaska and in northwest territory of Dominion of Canada**; observations at five stations in Alaska by J. E. McGrath and J. Henry Turner, 1889, 1890, and 1891; discussion of results and comparison with other stations by Charles A. Schott. Report for 1892, pt. 2, app. 11, p. 529-533, 1 map.
- Distribution of magnetic declination in Alaska and adjacent waters for 1895**, and construction of isogonic chart for same epoch; by C. A. Schott. Report for 1894, pt. 2, app. 4, p. 87-100, 2 maps.
- Secular variation in direction and intensity of earth's magnetic force in United States and in some adjacent foreign countries**; by Charles A. Schott. 8th ed. Report for 1895, app. 1, p. 167-320, 1 map, 3 diag.
- Distribution of magnetic declination in United States for epoch Jan. 1, 1900**; by Charles A. Schott. 3d ed. Report for 1896, app. 1, p. 147-235, 3 illus.
- Distribution of magnetic dip and magnetic intensity in United States for epoch Jan. 1, 1900**; by Charles A. Schott. 2d ed. Report for 1897, app. 1, p. 159-196, 3 maps.
- Results of magnetic observations made in connection with Greenland expedition of 1896**, under charge of A. E. Burton; by G. R. Putnam. Report for 1897, app. 5, p. 285-295, 1 map, 1 diag. 5c.
- General report upon magnetic survey of North Carolina, with a brief historical sketch of fundamental phenomena of earth's magnetism**; by James B. Baylor and Daniel L. Hazard, under direction of L. A. Bauer. Report for 1899, app. 9, p. 887-938, 2 pl. 2 maps. 15c.
- Magnetic work of Survey**; by L. A. Bauer. Report for 1899, app. 10, p. 939-952. 5c.
- Magnetic dip and intensity observations, Jan., 1897-June 30, 1902**; by D. L. Hazard, with preface by L. A. Bauer. Report for 1902, app. 6, p. 333-366, 3 views. 10c.
- Results of magnetic observations made by Survey**; by L. A. Bauer:
- July 1, 1902-June 30, 1903. Report for 1903, app. 5, p. 931-1004. 15c.
 - July 1, 1903-June 30, 1904. Report for 1904, app. 3, p. 207-255. 15c.
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- Distribution of magnetic declination in United States for Jan. 1, 1905**; by L. A. Bauer. Report for 1906, app. 4, p. 211-226, 1 map. 10c.
- Results of magnetic observations made by Survey**; by R. L. Faris:
- July 1, 1906-June 30, 1907. Report for 1907, app. 5, p. 157-230. 10c.
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 - 1914. Special publication 25; serial 3. 69 p. 15c.
- Results of magnetic observations made by Survey**; by D. L. Hazard:
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Distribution of magnetic declination in United States for Jan. 1, 1915; by Daniel L. Hazard. Special publication 33; serial 18. 16 p. 1 isogonic map. 10c.

Results of observations made at Survey magnetic observatory at Cheltenham, Md.; by D. L. Hazard:

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Results of observations made at Survey magnetic observatory at Sitka, Alaska; by D. L. Hazard:

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Results of observations made at Survey magnetic observatory at Baldwin, Kans.; by D. L. Hazard:

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Distribution of magnetic declination in Alaska and adjacent regions for 1910; by R. L. Faris. Report for 1909, app. 4, p. 151-179, 8 fig. 1 map. 10c.

Principal facts of earth's magnetism, and methods of determining true meridian and magnetic declination. (Reprinted from United States magnetic declination tables and isogonic charts for 1902.) 99 p. 1 map, 9 illus. 18 fig. 1913.

***Directions for magnetic measurements; by D. L. Hazard.** 131 p. 10 fig. 1911. 15c.

United States magnetic tables and magnetic charts for 1915; by Daniel L. Hazard. Special publication 44; serial 67. 256 p. 5 charts in pocket. 1918. 75c.

CARTOGRAPHY.

***Quincuncial projection of sphere; by C. S. Peirce.** Report for 1877, app. 15, p. 191-192, 1 map. 5c.

Tables for polyconic projection of maps, based upon Clarke's reference spheroid of 1866. 4th ed. Special publication 5 (revised). 189 p. 1 text fig. 1917. [Replaces app. 6, Report for 1884.] 25c.

- Elements of chart making; by E. Lester Jones. Special publication 38; serial 47. 15 p., 12 charts, 20 pl. 1916. 40c.
- Lambert conformal conic projection with two standard parallels, including comparison of Lambert projection with Bonne and polyconic projections; by Charles H. Deetz. Special publication 47; serial 77. 61 p. 7 litho. 14 text fig. 1918. 75c.
- Lambert projection tables, with conversion tables. [Supplement to Lambert conformal conic projection with two standard parallels.] Special publication 49; serial 82. 84 p. 2 text fig. 1918. 15c.
- Lambert projection tables for the United States; by Oscar S. Adams. Special publication 52; serial 89. 243 p. 11 text fig. 1918. 25c.
- General theory of Lambert conformal conic projection; by Oscar S. Adams. Special publication 53; serial 92. 38 p. 12 text fig. 10c.

MISCELLANEOUS.

- Nicaragua route for interoceanic ship canal, with review of other proposed routes; by Maximilian von Sonnenstern to minister of public works of Nicaragua. Translated for Survey. 22 p., 1 map. 1874.
- *Hypsometric formula based upon thermodynamic principles; by Chas. A. Schott. Report for 1876, app. 19, p. 388-390. 10c.^a
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- Tidal bench marks. Circular 28. 4 p. 1916.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

^a Appendixes 16-19 of Report for 1876 are bound under one cover. Appendixes 16-18 are listed under the heading "Geodesy," p. 21.

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44. Groupers: Fishes you should try, with recipes for cooking them; by H. F. Moore. Mar. 21, 1919. 8 p. 1 text fig. 5c.
45. Marked Pacific salmon: Announcement regarding fish expected to return in 1919 and subsequent years; by Willis H. Rich. In press.

STATISTICAL BULLETINS.

Statistical bulletins of the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., and Seattle, Wash., by American fishing vessels, are issued monthly and annually. The monthly issues are not carried in this list, but can be obtained upon application.

386. Fisheries of Pacific Coast States, 1915.
391. Summary, by species, of distribution of fish and fish eggs by United States Bureau of Fisheries during fiscal year 1917 and comparative statement of output of fish and fish eggs for a series of years.
402. Quantities and values of certain fishery products landed at Seattle, Wash., by American fishing vessels, calendar year 1917, by fishing grounds, and by months, and fishery products taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, calendar year 1917, by months.
416. Coastal fisheries of New York and New Jersey, by counties, exclusive of shell-fish, 1917. 1 p.
431. Same, Calendar year 1918, by months.
432. Quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels, calendar year 1918, by months.
433. Same, calendar year 1918, by fishing grounds.
436. Fisheries of Great Lakes, Lake of the Woods, and Rainy Lake in 1917.

MISCELLANEOUS.

- *Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 1, Physical and zoological; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 2, Botanical; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 1, 544 p. 1 chart, 3 maps, 270 text fig. 90c.
- *Biological survey of waters of Woods Hole [Mass.] and vicinity: sec. 3, Catalogue of marine fauna; by Francis B. Sumner, Raymond C. Osburn, and Leon J. Cole. Sec. 4, Catalogue of the marine flora; by Bradley M. Davis. Bull., vol. 31, 1911, pt. 2, 318 p. 65c.

- * **Alaska investigations in 1914**; by E. Lester Jones. Dec. 31, 1914. 155 p. 208 text fig. 50c.
- Bureau of Fisheries and its station at Woods Hole, Mass. 11 p. 3 text fig. 1915. 5c.
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- List of publications [of Bureau of Foreign and Domestic Commerce] for sale by Superintendent of Documents and by district and cooperative offices of Bureau. Corrected to Apr. 1, 1919. 14 p.
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23. Standardization of electrical practice in mines. July 15, 1916. 95 p. 15c.
24. Publications of Bureau of Standards. 5th ed. Apr. 14, 1919. 148 p. Supplement No. 1. Apr. 15, 1919. 4 p.
25. Standard samples—General information. 6th ed. June 20, 1917. 16 p. 5c. Standard samples issued or in preparation. (Supplement to Circular 25.) Apr. 1, 1919. 6 p.
26. Analyzed iron and manganese ores, methods of analysis. 3d ed. May 24, 1913. 20 p. 5c.
27. Properties and testing of optical instruments. 2d ed. Aug. 9, 1918. 41 p. 1 text fig. 10c.

31. Copper-wire tables. 3d ed. Oct. 1, 1914. 76 p. 3 text fig. 20c.
32. Standards for gas service. 3d ed. Mar. 10, 1915. 197 p. 35c.
33. United States Government specification for Portland cement. 3d ed. Jan. 18, 1917. 43 p. 10 text fig. 10c.
34. Relation of horsepower to kilowatt. 3d ed. May 15, 1915. 16 p. 5c.
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37. Electric wire and cable terminology. 2d ed. Jan. 1, 1915. 13 p. 15 text fig. 5c.
38. Testing of rubber goods. 3d ed. July 19, 1915. 89 p. 35 text fig. 15c.
40. Sodium oxalate as standard in volumetric analysis. 2d ed. May 15, 1913. 13 p. 5c.
41. Testing of textile materials. 3d ed. Sept. 20, 1918. 15 p. 7 text fig. 5c.
43. Metric carat. Nov. 1, 1913. 12 p. 5c.
44. Polarimetry. 2d ed. Jan. 30, 1918. 196 p. 2 pl. 13 text fig. 25c.
47. Units of weight and measure; definitions and tables of equivalents. July 1, 1914. 68 p. 15c. [Supersedes miscellaneous publication, "Tables of equivalents of United States customary and metric weights and measures."]

Table of equivalents—millimeters to inches. (Supplement to Circular 47.) Oct. 27, 1917. 10 p. 5c.
48. Standard methods of gas testing. 2d ed. June 10, 1916. 202 p. 1 pl. 15 text fig. 40c.
49. Safety rules to be observed in operation of electrical equipment and lines. (Part 4 of Proposed national electrical safety code.) 2d ed. May 4, 1915. 50 p. 10c.
50. National standard hose couplings and fittings for public fire service. 2d ed. June 8, 1917. 34 p. 1 pl. 4 text fig. 5c.
51. Measurement of time and tests of timepieces. Dec. 1, 1914. 39 p. 1 pl. 7 text fig. 15c.
52. Regulation of electrotyping solutions. 2d ed. June 28, 1916. 44 p. 1 text fig. 10c.
53. Composition, properties, and testing of printing inks. Mar. 29, 1915. 35 p. 10c.
54. Proposed national electrical safety code. 2d ed. Nov. 15, 1916. 323 p. 16 text fig. 20c.

Index to Parts 1, 2, and 3 of Circular 54, 2d edition. 11 p.
- *55. Measurements for the household. Aug. 28, 1915. 149 p. 1 pl. 61 text fig. 15c.
56. Standards for electric service. July 28, 1916. 262 p. 45c.
57. United States standard tables for petroleum oils. Jan. 29, 1916. 64 p. 2 text fig. 15c.
58. Invar and related nickel steels. Apr. 4, 1916. 68 p. 1 pl. 37 text fig. 10c.
59. United States standard Baumé hydrometer scales. Apr. 5, 1919. 13 p. 5c.
60. Electric units and standards. Sept. 25, 1916. 68 p. 15c.
61. Specifications and tolerances for weights and measures and weighing and measuring devices. Nov. 13, 1916. 44 p. 2 text fig. 10c.
63. Specification of transparency of paper and tracing cloth. May 17, 1917. 8 p. 2 p. of pl. 2 text fig. 5c.
64. Rules and regulations for enforcement of lime-barrel act. Apr. 20, 1917. 7 p. 5c.
65. Gas-calorimeter tables. July 23, 1917. 19 p. 6 text fig. 5c.
66. Standard samples for thermometric fixed points. July 25, 1917. 13 p. 5c.
67. Wire gages. Jan. 17, 1918. 5 p. 5c.
68. Public utility service standards of quality and safety. Oct. 6, 1917. 8 p. 5c.
69. Paint and varnish. Nov. 17, 1917. 85 p. 15c.
70. Materials for the household. Dec. 5, 1917. 259 p. 11 text fig. 25c.
71. Rules and regulations promulgated under authority of Federal standard-barrel law. Sept. 18, 1917. 8 p. 5c.

72. Scope and application of National Electrical Safety Code. June 17, 1918. 84. p. 20c.
74. Radio instruments and measurements. Mar. 23, 1918. 330 p. 1 pl. 12 p. of pl. 199 text fig. 60c.
75. Safety for the household. Jan. 10, 1918. 127 p. 16 pl. 7 text fig. 15c.
76. Aluminum and its light alloys. Apr. 21, 1919. 120 p. 2 pl. 23 text fig. 20c.
77. Table of unit displacement of commodities. Mar. 10, 1919. 67 p. 10c.
78. Solders for aluminum. Jan. 28, 1919. 10 p. 2 p. of pl. 5c.
79. Electrical characteristics and testing of dry cells. Apr. 25, 1919. 44 p. 1 pl. 10 text fig. 10c.

MISCELLANEOUS PUBLICATIONS.

1. Manual of inspection and information for weights and measures officials. Nov. 14, 1918. 246 p. 2 text fig. 30c.
2. International metric system of weights and measures. 15 p. 6 text fig. 1906. 10c.
3. International metric system. (Chart.)
4. First conference on weights and measures of United States. Jan. 16, 17, 1905. 46 p. 10c.
5. Second annual conference on weights and measures of United States. Apr. 12, 13, 1906. 60 p. 15c.
6. Third annual conference on weights and measures of United States. May 16, 17, 1907. 110 p. 25c.
7. Fourth annual conference on weights and measures of United States. Dec. 17, 18, 1908. 78 p. 15c.
8. Fifth annual conference on weights and measures of United States. Feb. 25, 26, 1910. 123 p. 15c.
9. Sixth annual conference on weights and measures of United States. Feb. 17, 18, 1911. 158 p. 1 text fig. 20c.
- *10. Seventh annual conference on weights and measures of United States. Feb. 15, 16, 1912. 186 p. 5 pl. 19 text fig. 20c.
- *11. Eighth annual conference on weights and measures of United States. May 14-17, 1913. 291 p. 8 pl. 25 text fig. 35c.
12. Ninth annual conference on weights and measures of United States. May 26-29, 1914. 176 p. 1 pl. 8 text fig. 20c.
13. Tenth annual conference on weights and measures of United States. May 25-28, 1915. 254 p. 1 poster, 18 text fig. 50c.
14. Eleventh annual conference on weights and measures of United States. May 23-26, 1916. 265 p. 7 pl. 8 p. of pl. 21 text fig. 35c.
15. Some technical methods of testing miscellaneous supplies; by Percy H. Walker. Nov. 15, 1916. 68 p. 3 text fig. 15c.
16. Report to international committee on electrical units and standards of special technical committee appointed to investigate and report on concrete standards of international electrical units and to recommend value for Weston normal cell. Jan 1, 1912. 207 p. 30c. [Also Supplement. 1913. 34 p. 5c.]
17. Copper-wire table (English and metric). 1914. 2 p.
18. National Bureau of Standards—Description of work of Bureau. 24 p. 5c.
19. Proceedings of second annual textile conference, May 21-22, 1917. 87 p. 2 pl. 8 p. of pl. 5 text fig. 20c.
20. Laws concerning weights and measures of United States. 1st ed. 1904. State and national laws concerning weights and measures of United States. 2d ed. 1912. 10c.
21. Metric manual for soldiers. 16 p. 2 text fig. 2 diag. 5c.
- 22-37. Annual reports of Director, 1902-1917, inclusive. [Copies are not available for the years 1902, 1905, 1909, 1910, 1911, and 1913.]^a
38. Annual report of Director, 1918. 206 p. 1 poster.

^a Copies of the annual reports of the Director may be obtained from the Superintendent of Documents as follows: 1906, 5c.; 1906, 10c.; 1915, 15c.; 1917, 15c.; 1918, 15c.

*Available only from Superintendent of Documents and at price stated. See note on p. 2.

STEAMBOAT-INSPECTION SERVICE.

The Report of the Supervising Inspector General is the only regular publication issued by the Steamboat-Inspection Service.

The publications noted below are issued from time to time, corrected to date of issue:

Laws Governing the Steamboat-Inspection Service.

General Rules and Regulations Prescribed by the Board of Supervising Inspectors, heretofore published in one volume, are now published as four separate pamphlets, according to the kinds of waters covered by the rules, as follows: (1) Ocean and coastwise; (2) Great Lakes; (3) Lakes other than the Great Lakes, bays, and sounds; and (4) Rivers.

Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico.

Pilot Rules for the Rivers Whose Waters Flow into the Gulf of Mexico and Their Tributaries and the Red River of the North.

Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters.

The latest available editions of the publications are shown in the following list. Requests should be addressed to the "Supervising Inspector General, Steamboat-Inspection Service, Washington, D. C."

Annual report of Supervising Inspector General, 1918. 38 p.

Laws governing Steamboat-Inspection Service. 90 p. Ed. Mar. 5, 1919. In press.
General rules and regulations prescribed by Board of Supervising Inspectors, as amended by Board Jan., 1918, and further amended by executive committee of Board:

Ocean and coastwise. Ed. Apr. 8, 1918. 205 p. 8 text fig.

Great Lakes. Ed. May 29, 1918. 155 p. 6 text fig.

Lakes other than Great Lakes, bays, and sounds. Ed. Aug. 1, 1918. 155 p. 6 text fig.

Rivers. Ed. Nov. 19, 1918. 145 p. 6 text fig.

Pilot rules for certain inland waters of Atlantic and Pacific coasts and of coast of Gulf of Mexico. Ed. Aug. 14, 1917. 32 p. 5 text fig.

Pilot rules for rivers whose waters flow into Gulf of Mexico and their tributaries and Red River of North. Ed. Aug. 1, 1911. 22 p. 5 text fig.

Pilot rules for Great Lakes and connecting and tributary waters. Ed. May 1, 1912. 20 p. 5 text fig.





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